Cancer Incidence and Mortality in Nebraska: 2001

March, 2004

The Nebraska Cancer Registry contains a wealth of information, not all of which can be included in this summary report:

What types of data are available?

- Demographic information: age at diagnosis, gender, race/ethnicity, county of residence
- Medical history: diagnosis, primary site, cell type, stage of disease at diagnosis
- Therapy: surgery, radiation therapy, chemotherapy, immunotherapy, hormone therapy
- Follow-Up: length of survival, cause of death

Who may request data from the Nebraska Cancer Registry?

- Medical Researchers
- Health Planners
- Marketing Researchers
- Health Care Facility Administrators
- Physicians
- Nurses
- Health Care Facility Cancer Committees
- Oncology Conference Planners and Speakers
- Patient Care Evaluators
- Pharmaceutical Companies
- Government Officials
- Concerned Citizens
- Students

How do I make a request?

Contact the Data Management Section at the
Nebraska Health and Human Services System
Department of Regulation and Licensure
P.O. Box 95007, Lincoln, NE 68509-5007
Phone 402/471-2241, Monday-Friday between 8 am and 5 pm

Please note: To comply with confidentiality regulations, the NHHSS reserves the right to limit the amount and type of data that are released in response to a request.

NEBRASKA CANCER REGISTRY
2001 ANNUAL REPORT

Nebraska Health & Human Services System
Department of Regulation and Licensure
Richard P. Nelson, Director

Public Health Assurance Division
Data Management Section

Stephen R. Frederick, M.A.
Section Administrator

Carla Becker, R.H.I.A.
Health Data Manager

Victor Filos, M.S.
Statistical Analyst

Vickie Krueger
Administrative Assistant

Department of Finance and Support
Stephen Curtiss, Director

Financial Services Division
Research and Performance Measurement Unit

Norm Nelson, M.S.
Statistical Analyst

Bryan Rettig, M.S.
Program Analyst

This publication was supported by Cooperative Agreement Grant Number U55/CCU721962 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official view of CDC.

A special thank you to the Nebraska Cancer Registry Advisory Committee members who provided advice and assistance to the Nebraska Cancer Registry, and also reviewed this report.

Nebraska Cancer Registry Advisory Committee Members

James Anderson, PhD
Dept. of Preventive and Societal Medicine
University of Nebraska Medical Center

John Casey, MD
Lincoln, Nebraska

Ray Gaines, MD
Department of Surgery
Creighton University

Glen Hoffschneider
Nebraska Methodist Hospital

F. William Karrer, MD
Methodist Cancer Center

Donna Keller, RHIT
Nebraska Health System -- Clarkson

Daniel Lydiatt, MD
Methodist Cancer Center

Mary Meysenburg
Nebraska Methodist Hospital

Judy Paradies, CTR
Nebraska Cancer Registry

DiAnna R. Schimek
Senator, Nebraska Unicameral

Shelly Spencer, CTR
St. Elizabeth Regional Medical Center

Alan G. Thorson, MD, FACS
Colon and Rectal Surgery
University of Nebraska Medical Center

Dennis Weisenburger, MD
Dept. of Pathology and Microbiology
University of Nebraska Medical Center

Nebraska Cancer Registry
Data Collection Staff

Judy Paradies, CTR
Coordinator

Suzanne McKinney, CTR
Abstractor

Mary Lien, CTR
Quality Assurance Coordinator

CONTENTS

INTRODUCTION

This publication represents the 15th annual statistical summary of the Nebraska Cancer Registry (NCR) since it began collecting data in 1987. The purpose of this report is to present the registry's most recent data to the citizens of the State of Nebraska. The majority of the data cover cancer diagnoses and cancer deaths that occurred between January 1, 2001, and December 31, 2001, as well as during the past five years (January 1, 1997-December 31, 2001).

The NCR was founded in 1986, when the Nebraska Unicameral authorized funding for a state cancer registry using a portion of funds generated by the state's cigarette tax. The establishment of the registry successfully combined the efforts of many Nebraska physicians, legislators, concerned citizens, and the Nebraska Medical Foundation, all of whom had worked for years toward this goal. The Nebraska Medical Foundation also helped to establish the registry with financial assistance. Since 1994, the NCR has received additional funding from the Centers for Disease Control and Prevention (CDC).

The Nebraska Health and Human Services System (NHHSS) currently manages the NCR, although data collection and editing are performed by the Nebraska Methodist Hospital of Omaha, under contract to the Nebraska Medical Foundation. Analysis of registry data and preparation of the annual statistical report are the responsibility of the NHHSS.

The purpose of the registry is to gather data that describe how many Nebraska residents are diagnosed with cancer, what types of cancer they have, what type of treatment they receive, and how long they survive after diagnosis. These data are extensively utilized, both inside and outside of the NHHSS. Within the agency, they are monitored closely from year to year to determine the trends that are developing, and to see how Nebraska's cancer experience compares to the rest of the nation. They are indispensable for investigating reports of possible cancer clusters. The NHHSS also uses these data to help with the planning and evaluation of programs in the area of cancer control. Outside of the NHHSS the registry has furnished information to many individuals, institutions, and organizations, such as the North American Association of Central Cancer Registries, the University of Nebraska Medical Center, the National Cancer Institute, the American Cancer Society (ACS), and CDC. The NCR also contributes data to several national cancer incidence databases (see Methodology section, page 3).

All individual records in the cancer registry are kept in strict confidence as prescribed by both state and federal law. The NCR follows all of the privacy safeguards in the Health Insurance Portability and Accountability Act (HIPAA), although some of the procedural requirements do not apply to the registry.

The NHHSS welcomes inquiries about cancer from the public for aggregate statistics or general information from the registry. To obtain cancer data or information about the registry not included in this report, please refer to the instructions provided inside the front cover. For more information about cancer control activities within the NHHSS, please call the Division of Health Services at 402/471-6038, or write to the Division at P.O. Box 95044, Lincoln, NE 68509-5044.

An electronic copy of this report is now available to Internet users via the NHHSS web site. The URL address is http://www.hhs.state.ne.us/srd/srdindex.htm.

METHODOLOGY

Data Collection and Management

The NCR gathers data on Nebraska residents diagnosed and treated for invasive and in situ tumors. Benign tumors (although benign brain and other central nervous system tumors, have become reportable as of January 1, 2004), benign polyps, basal cell carcinomas of the skin, and in situ and localized squamous cell carcinomas of the skin are excluded from the registry. Information collected on each case includes the patient's name, address, birthdate, race, gender, and Social Security number; date of diagnosis; primary site of the cancer (coded according to the International Classification of Diseases for Oncology, 3rd edition [ICD-O-3]); stage of disease at diagnosis; facility where the initial diagnosis was made; basis of staging; method of diagnostic confirmation; and histological type (also classified according to the ICD-O-3). Follow-up information is gathered periodically on registered cases, and includes the date of last contact with the patient, status of disease, type of additional treatment, quality of survival; and, if death has occurred, the date and cause of death and the status of the cancer at the time of death. The registry gathers this information from every hospital in the state for all persons diagnosed with and/or treated for cancer. In addition, the registry includes Nebraska residents who are diagnosed with and/or treated for cancer out of state. NCR data also include cases diagnosed and/or treated at pathology laboratories, radiation therapy sites, physician's offices, and cases identified from death certificates.

Nebraska cancer mortality data are obtained from death certificates on file with the NHHSS. Mortality data are available for every Nebraska resident who dies from cancer, whether death occurs in or outside of Nebraska. The mortality data presented in this report are limited to those deaths where cancer is listed as the underlying (i.e., primary) cause of death. For deaths that occurred during 1999-2001, causes of death are coded according to the Tenth Edition of the International Classification of Disease (ICD-10). For deaths that occurred prior to 1999, causes of death are coded according to the Ninth Edition of the International Classification of Disease (ICD-9).

U.S. cancer incidence and mortality statistics are taken from the most recent data posted on the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program web site. The SEER Program compiles incidence data from a select group of cancer registries located throughout the United States, and these data provide estimates of national cancer incidence. The mortality data are compiled by the National Center for Health Statistics and include all cancer deaths occurring in the United States, with cancer deaths defined as only those deaths for which cancer is listed as the underlying cause.

Confidentiality

All data obtained by the NCR from the medical records of individual patients are held in strict confidence by the NHHSS. As specified in state statute, researchers may obtain case-specific and/or patient-identifiable information from the registry by submitting a written application that describes how the data will be used for scientific study. In situations where contact with a patient or patient's family is proposed, the applicant must substantiate the need for any such contact and submit approval from an Institutional Review Board. In addition, before any individual's name can be given to a researcher, the registry will obtain permission from the individual that they are willing to be a research subject. Upon favorable review by the NHHSS, the applicant must also agree to maintain the confidentiality and security of the data

throughout the course of the study, to destroy or return the registry data at the end of the study and to present material to the registry prior to publication to assure that no identifiable information is released.

Aggregate data (i.e., statistical information) from the registry are considered open to the public and are available upon request. Details on how to obtain such data are provided inside the front cover of this report.

Quality Assurance

The NCR and reporting facilities spend a great deal of time and energy to ensure that the information they gather is both accurate and complete. In recent years, these efforts have met with great success. For six consecutive years (1995-2000), the NCR has met all of the criteria necessary to earn the Gold Standard of data quality awarded by the North American Association of Central Cancer Registries (NAACCR). These criteria include:

1) Completeness of case ascertainment – The registry must find at least 95% of the total number of cases that are estimated to have occurred.

2) Completeness of information – The proportion of registry cases missing information on age at diagnosis, gender, and county of residence must be no more than 2%, and the proportion missing information on race must be no more than 3%.

3) Data accuracy – Error rates based on edit checks of selected data items must be no greater than 1%.

4) Timeliness – All data for a single calendar year must be submitted to the NAACCR for review no more than 23 months after the year has ended.

Gold standard certification also requires that all cases pass strict edits and that the proportion of registry cases found solely through a review of death certificates must be no more than 3%. Lastly, the proportion of duplicate cases in the registry must be no more than one per 1,000.

Since the NCR has achieved the highest quality standards, its data are now included in several national cancer incidence databases. These databases include information from other cancer registries in the United States and Canada that meet the same data quality standards as the NCR. Nebraska cancer data are included in the databases listed below, all of which are accessible via the Internet:

1) *Cancer in North America: 1996-2001* (http://www.naaccr.org/stats/CINAPubs.html)

2) *United States Cancer Statistics: 2000 Incidence* (http://www.cdc.gov/cancer/npcr/uscs/index.htm)

3) *ACS Cancer Facts & Figures 2004* (http://www.cancer org/docroot/STT/stt_0.asp)

4) *Cancer Control PLANET* (http://cancercontrolplanet.cancer.gov/).

Definitions

Several technical terms are used in presenting the information in this report. The following definitions are provided here to assist the reader.

Incidence rate
An incidence rate is the number of new cases of a disease that occur within a specific population, divided by the size of the population. For example, if 10 residents of a county with 20,000 residents are diagnosed with colorectal cancer during a single year, then the incidence rate for that county for that year is .0005. Since cancer incidence rates are usually expressed per 100,000 population, this figure is then multiplied by 100,000 to yield a rate of 50 per 100,000 per year.

Mortality rate
A mortality rate is the number of deaths that occur within a specific population, divided by the size of the population. Only those persons whose death certificate lists cancer as the underlying (i.e., primary) cause of death are included in a cancer mortality rate. Like incidence rates, mortality rates are usually expressed as the number of deaths per 100,000 population.

Age-adjusted rate
Age-adjustment is a simple mathematical procedure that makes it possible to compare rates between populations that have different age distributions, and to compare rates within a single population over time. This edition of the NCR's annual report is the third in which all incidence and mortality rates were age-adjusted using the United States population in 2000 as the standard. Rates presented in pre-1999 editions of this report were age-adjusted using the U.S. population in 1970 as the standard. **For this reason, the rates presented in this report can not be compared to those presented in previous reports.**

Stage of Disease at Diagnosis

In situ
Cases diagnosed as in situ include malignant tumors that are confined to the cell group of origin, and have not penetrated the supporting structure of the organ on which they arose.

Invasive
Cases diagnosed as invasive include malignant tumors that, unlike in situ tumors, have at least penetrated the supporting structure of the organ where they originated, and may have spread further. Invasive tumors are subdivided into three categories:

Localized--A localized invasive tumor has not spread beyond the boundaries of the organ where it originated.

Regional--A regional invasive tumor has spread beyond the limits of the organ of origin, by direct extension to immediately adjacent organs or tissues and/or by spread to regional lymph nodes.

Distant--A distant invasive tumor has spread beyond its original (primary) site to distant parts of the body.

number of cases for any county with five or

Data Analysis

Most of the incidence and mortality rates presented in this report were calculated for cancer diagnoses and deaths that occurred during 2001 and 1997-2001 combined. Incidence and mortality rates that are based on more than one year of data should be interpreted as an average annual rate. Rates for 2001 were calculated using 2001 population estimates developed by the United States Bureau of the Census, while the 1997-2001 rates were calculated using 1999 population estimates developed by the Census Bureau. The rates in Tables 3 and 7, which are based on data for the years 1990-2001, were calculated using an average of the 1990 and 2000 Census counts for Nebraska's white, African-American, Native American, Asian/Pacific Islander, and Hispanic populations.

All of the data presented in this report are current through January 1, 2004. However, because some cases diagnosed during or even before 2001 may not yet have been reported to the registry, the incidence data presented in this report should be considered subject to change. **In addition, the incidence data reported in previous editions of this publication should no longer be considered complete.**

With the exception of bladder cancer, all of the site-specific incidence rates in this report were calculated with invasive cases alone to maintain comparability with statistics from the SEER Program and other cancer registries throughout the United States. For bladder cancer, however, both the NPCR and the SEER Program calculate incidence rates with in situ and invasive cases combined. All incidence and mortality rates in this report were calculated per 100,000 population, and were age-adjusted according to the age distribution of the population of the United States in 2000. Statewide rates were also calculated for males and females separately, and for both sexes combined. Rates based on five or fewer events are not presented due to their unreliability. Also, the

number of comparisons varied by table since

fewer cases in a single year is not shown in order to reduce the possibility of identifying a specific person.

The transition from the ICD-O-2 to the ICD-O-3 (the coding systems used to classify cancer cases), which began for cases diagnosed on or after January 1, 2001, has also created some differences in the way that invasive cases are now defined. Certain types of cancer that were classified as non-invasive according to the ICD-O-2 are now classified as invasive by the ICD-O-3 (and vice versa), and some new codes have been added. The net effect has been an increase in the total number of invasive cases, confined mostly to an increase in the number of blood-borne cancers but with some reduction in the number of cancers of the ovary. In this report all 2001 cancer cases are classified using the ICD-O-3 system. For cases diagnosed prior to 2001, their ICD-O-2 classification remains in effect, with the exception of ovarian cancers, which have been reclassified according to the ICD-O-3. For other cancers, the registry considers the available data insufficient to satisfactorily reclassify pre-2001 cases using the ICD-O-3 system.

In Tables 2, 6, and 9-17, differences between state and county rates were evaluated for statistical significance. Confidence intervals for each rate were calculated using the formula CI = r $\pm$ (RC x SE), where CI = confidence interval, r = rate, RC = reliability coefficient, and SE = standard error. The standard error for each rate was determined by dividing the rate by the square root of the number of events (cancer diagnoses or deaths). This assumes that a Poisson distribution is appropriate. The level of statistical significance used to compare rates (and determine reliability coefficients) was determined for each table using the Bonferroni method. This method divides the overall desired level of statistical significance (set at 5%) by the number of statistical comparisons being made. The

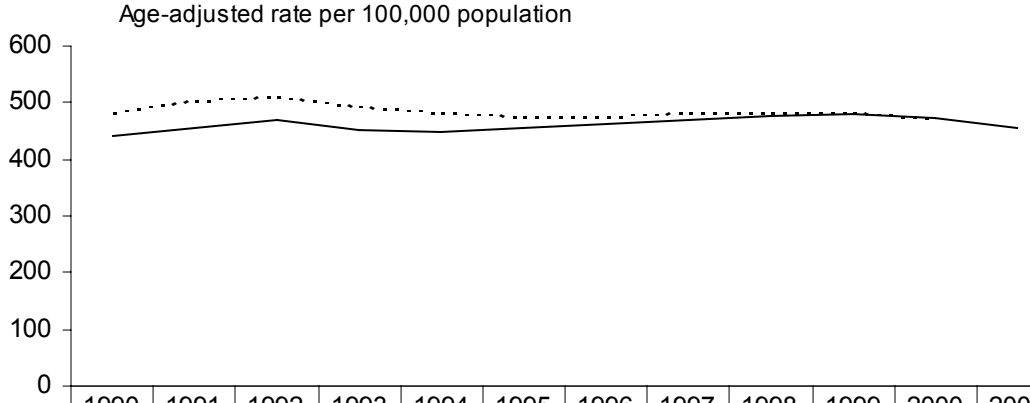
county rates based on five or fewer cases were excluded. As a result, reliability coefficients also varied by table. A statistically significant difference exists and is indicated in those instances where the confidence intervals of a county rate and the state rate do not intersect.

CANCER INCIDENCE IN NEBRASKA

The Nebraska Cancer Registry recorded 8,708 diagnoses of cancer among Nebraska residents in 2001. Of this number, 8,142 were invasive cancers and 566 were in situ cancers. The in situ figure does not include 185 in situ bladder cancers, which were, as explained on page 5, counted as invasive cases. The 2001 data show a decrease from 2000, when 8,984 diagnoses (8,351 invasive, 633 in situ) were reported. Excluding in situ cases, Nebraska's 2001 cancer diagnoses translate into an annual incidence rate of 455.8 cases per 100,000 population, compared to the 2000 rate of 471.5. By site of origin (i.e., primary site), cancers of the lung, breast, prostate, colon and rectum occurred the most frequently, accounting for more than half (56.9%) of the state's invasive diagnoses in 2001.

Table 1 presents the number and rate of invasive cases diagnosed among Nebraska residents during 2001 and 1997-2001, for all sites combined and for cancers of specific sites. National incidence rate estimates for the year 2000 are also presented. Comparison of state and national rates shows that, for all sites combined and for most individual sites, the incidence of cancer in Nebraska is the same as or lower than that experienced by Americans as a whole. Table 2 presents the number of invasive cancers diagnosed and the incidence rates for 2001 and 1997-2001 by county of residence, with comparable statewide and national rates included. Table 3 presents Nebraska incidence data by race and ethnicity for the years 1990-2001. Table 4 presents the number of invasive cancer cases diagnosed in Nebraska during 1997-2001 by age at diagnosis. The graph below presents the annual incidence rates for cancer (all sites) for Nebraska and the United States since 1990.

Cancer (All Sites)
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	439.9	454.8	468.3	451.8	449.0	455.8	460.6	471.0	476.0	481.0	471.5	455.8
..... United States	482.5	503.3	511.2	493.7	483.5	476.3	477.6	484.1	484.5	483.1	472.9	

TABLE 1: Cancer Incidence (Invasive Cases Only)
Number of Cases and Rates, By Site and Gender
Nebraska (2001 and 1997-2001) and US (2000)

SITE	NEBRASKA 2001						NEBRASKA 1997-2001						US 2000		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
All Sites	4,134	527.0	4,008	407.0	8,142	455.8	21,037	556.6	20,013	418.7	41,051	474.6	560.2	413.8	472.9
Oral Cavity & Pharynx	128	16.0	71	7.2	199	11.3	614	16.1	312	6.4	926	10.8	15.9	6.2	10.6
Esophagus	59	7.6	18	1.7	77	4.3	312	8.2	92	1.7	404	4.7	7.9	2.1	4.7
Stomach	66	8.5	43	4.0	109	6.0	316	8.5	187	3.6	503	5.7	11.6	5.3	8.0
Colon & Rectum (Colorectal)	505	65.4	519	48.5	1,024	55.9	2,692	72.1	2,626	50.9	5,318	60.1	62.5	45.9	53.1
Liver & Intrahepatic Duct	44	5.7	16	1.5	60	3.3	183	4.8	98	2.0	281	3.3	8.1	3.0	5.3
Pancreas	74	9.7	77	7.2	151	8.2	416	11.1	435	8.5	851	9.6	12.8	9.4	10.9
Lung & Bronchus	624	79.6	443	45.0	1,067	60.1	3,250	85.9	2,270	47.0	5,520	63.7	79.8	49.8	62.3
Melanoma of the Skin	132	16.5	111	12.4	243	13.9	680	17.8	565	12.9	1,245	14.9	22.5	14.4	17.7
Breast	9	1.1	1,287	134.0	1,296	72.9	46	1.2	6,216	133.9	6,262	73.2	1.3	135.1	73.6
Uterine Cervix	--	--	66	7.6	--	--	--	--	363	8.6	--	--	--	7.6	--

TABLE 1: Cancer Incidence (Invasive Cases Only) (Continued)
Number of Cases and Rates, By Site and Gender
Nebraska (2001 and 1997-2001) and US (2000)

SITE	NEBRASKA 2001						NEBRASKA 1997-2001						US 2000		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	230	24.3	--	--	--	--	1,270	27.3	--	--	--	24.4	--
Ovary	--	--	122	12.8	--	--	--	--	746	16.2	--	--	--	16.3	--
Prostate	1,161	148.6	--	--	--	--	6,246	165.2	--	--	--	--	176.9	--	--
Urinary Bladder	298	38.5	105	9.9	403	22.2	1,403	37.7	450	8.7	1,853	21.0	37.8	9.4	21.3
Brain & Other CNS	69	8.4	55	5.6	124	7.1	344	8.8	265	5.7	609	7.2	8.0	5.4	6.6
Hodgkin Lymphoma	22	2.6	27	3.0	49	2.8	142	3.6	136	3.1	278	3.3	3.3	2.3	2.7
Non-Hodgkin Lymphoma	164	20.8	166	16.4	330	18.4	857	22.6	853	17.4	1,710	19.7	23.4	15.4	19.0
Multiple Myeloma	54	6.9	37	3.7	91	5.1	256	6.8	210	4.3	466	5.3	6.8	4.5	5.5
Leukemia	114	14.6	83	8.1	197	10.9	600	15.8	515	10.3	1,116	12.7	15.2	9.4	11.9

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population
Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. population.

TABLE 2: Cancer (All Sites) Incidence
Number of Cases and Rates, by County of Residence
Nebraska (2001 and 1997-2001) and US (2000 and 1996-2000)

	2000		1996-2000	
	# Cases	Rate	# Cases	Rate
US	NA	472.9	NA	480.4
	2001		1997-2001	
NEBRASKA	8,142	455.8	41,051	474.6
COUNTY				
ADAMS	146	411.2	769	453.7
ANTELOPE	32	308.4	195	388.8
ARTHUR	*	*	12	362.0
BANNER	*	*	13	257.0
BLAINE	*	*	13	431.9
BOONE	42	495.0	208	470.7
BOX BUTTE	50	377.2	320	507.1
BOYD	21	580.9	74	359.5
BROWN	24	429.5	118	458.2
BUFFALO	182	465.6	882	490.9
BURT	37	315.5	281	496.7
BUTLER	60	531.9	264	470.8
CASS	124	496.9	557	457.7
CEDAR	65	505.8	272	428.3
CHASE	26	417.0	132	445.5
CHERRY	24	336.9	162	418.6
CHEYENNE	40	336.0	278	468.6
CLAY	43	502.1	212	460.5
COLFAX	50	406.6	285	▼ 369.9
CUMING	51	343.5	244	▼ 338.7
CUSTER	68	394.6	376	448.5
DAKOTA	87	507.8	408	481.3
DAWES	37	384.5	199	436.2
DAWSON	107	410.8	533	406.9
DEUEL	12	358.8	72	489.3
DIXON	41	488.4	159	388.3
DODGE	192	439.7	1,071	495.5
DOUGLAS	1,984	467.9	10,203	▲ 503.9
DUNDY	8	282.3	64	396.4
FILLMORE	37	398.9	215	446.6
FRANKLIN	22	471.1	157	554.6
FRONTIER	12	318.3	77	427.5
FURNAS	32	384.0	191	453.1
GAGE	136	456.2	637	422.6
GARDEN	22	644.8	104	672.4
GARFIELD	20	685.8	82	536.0
GOSPER	12	366.6	71	403.6
GRANT	*	*	15	386.8
GREELEY	17	428.1	104	492.5
HALL	283	494.4	1,355	499.1
HAMILTON	46	436.7	255	460.4
HARLAN	16	290.4	111	407.0
HAYES	*	*	18	312.1
HITCHCOCK	13	288.4	109	480.8
HOLT	71	463.3	374	478.5
HOOKER	*	*	31	545.4
HOWARD	37	464.0	174	418.0

TABLE 2: Cancer (All Sites) Incidence (Continued) Number of Cases and Rates, by County of Residence Nebraska (2001 and 1997-2001) and US (2000 and 1996-2000)

	2001		1997-2001	
	# Cases	Rate	# Cases	Rate
COUNTY				
JEFFERSON	50	432.5	249	409.8
JOHNSON	31	432.6	149	407.0
KEARNEY	29	325.9	152	376.8
KEITH	52	430.2	268	477.4
KEYA PAHA	*	*	20	310.4
KIMBALL	29	509.9	150	516.9
KNOX	77	527.2	316	440.9
LANCASTER	1,069	485.7	5,129	492.8
LINCOLN	181	452.6	921	493.2
LOGAN	*	*	14	280.4
LOUP	*	*	11	301.6
McPHERSON	6	748.8	15	335.6
MADISON	198	517.2	965	532.3
MERRICK	51	489.1	237	479.1
MORRILL	31	463.3	155	473.6
NANCE	35	654.2	149	546.1
NEMAHA	53	561.4	225	480.1
NUCKOLLS	25	298.7	194	437.3
OTOE	92	469.7	445	463.6
PAWNEE	26	490.6	134	472.9
PERKINS	15	432.8	88	450.0
PHELPS	48	390.2	265	435.9
PIERCE	45	467.6	201	407.5
PLATTE	150	466.2	803	▲619.6
POLK	32	435.5	154	392.5
RED WILLOW	67	449.7	351	483.8
RICHARDSON	62	444.3	337	500.5
ROCK	7	286.1	54	447.1
SALINE	66	410.3	393	475.5
SARPY	461	519.7	2,020	467.1
SAUNDERS	97	419.7	467	422.4
SCOTTS BLUFF	190	417.7	996	471.6
SEWARD	82	440.2	426	469.1
SHERIDAN	28	320.2	184	409.6
SHERMAN	17	315.1	99	409.1
SIOUX	*	*	15	▼175.4
STANTON	28	416.3	122	419.3
THAYER	37	399.9	226	455.3
THOMAS	*	*	21	626.5
THURSTON	28	421.6	136	404.5
VALLEY	33	414.0	140	399.5
WASHINGTON	88	444.7	442	448.4
WAYNE	38	394.7	186	381.4
WEBSTER	32	485.7	146	467.6
WHEELER	*	*	31	587.8
YORK	94	523.1	394	453.8

NA = not available
*Number in a given year and rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 3: Cancer Incidence (Invasive Cases Only)
Number of Cases and Rates, All Sites and Top Ten Sites, By Race and Ethnicity
Nebraska (1990-2001)

	White			African-American			Native American			Asian/Pacific Islander			Hispanic		
	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate
	All	89,962	456.2	All	2,338	509.7	All	288	325.6	All	280	255.5	All	595	186.0
Rank															
1	Prostate	14,790	172.1	Lung & Bronchus	420	93.1	Prostate	39	118.5	Breast	34	33.5	Colon & Rectum (Colorectal)	76	29.3
2	Breast	13,470	70.2	Prostate	379	215.4	Lung & Bronchus	36	41.4	Colon & Rectum (Colorectal)	31	34.7	Breast	76	23.2
3	Lung & Bronchus	12,010	60.6	Breast	347	71.9	Colon & Rectum (Colorectal)	35	41.6	Lung & Bronchus	25	28.0	Lung & Bronchus	57	20.3
4	Colon & Rectum (Colorectal)	11,868	58.7	Colon & Rectum (Colorectal)	253	59.2	Breast	33	33.0	Uterine Cervix	24	27.8	Prostate	56	47.5
5	Urinary Bladder	4,140	20.5	Non-Hodgkin Lymphoma	90	19.3	Oral Cavity & Pharynx	11	13.1	Prostate	19	61.7	Leukemia	34	5.7
6	Non-Hodgkin Lymphoma	3,617	18.4	Pancreas	64	15.8	Stomach	8	10.1	Liver & Intrahepatic Duct	16	17.5	Non-Hodgkin Lymphoma	31	9.7
7	Uterine Corpus & Unspecified (Endometrium)	2,817	26.6	Multiple Myeloma	53	12.6	Liver & Intrahepatic Duct	8	8.6	Non-Hodgkin Lymphoma	14	11.5	Uterine Cervix	29	12.4
8	Leukemia	2,424	12.2	Stomach	52	11.9	Ovary	8	16.7	Leukemia	13	5.5	Uterine Corpus & Unspecified (Endometrium)	22	12.9
9	Melanoma of the Skin	2,199	11.7	Oral Cavity & Pharynx	51	10.2	Uterine Cervix	8	13.1	Thyroid	12	8.0	Stomach	18	7.5
10	Oral Cavity & Pharynx	2,064	10.6	Leukemia	48	9.5	Pancreas	7	10.5	Pancreas	10	9.8	Urinary Bladder	18	6.4
							Non-Hodgkin Lymphoma	7	9.0						

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.
Rates for gender-specific sites (prostate, cervix, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.

TABLE 4: Cancer Incidence (Invasive Cases Only)
Number of Cases and Percentage Distribution, By Site and Age at Diagnosis, Nebraska (1997-2001)

	0-17 Yrs.		18-44 Yrs.		45-64 Yrs.		65 Yrs and Older		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Sites	315	0.8	3,158	7.7	11,881	28.9	25,697	62.6	41,051	100.0
Oral Cavity & Pharynx	7	0.8	71	7.7	340	36.7	508	54.9	926	100.0
Esophagus	0	0.0	11	2.8	131	32.4	262	64.8	404	100.0
Stomach	0	0.0	22	4.4	107	21.3	374	74.3	503	100.0
Colon & Rectum (Colorectal)	1	<0.1	178	3.3	1,227	23.1	3,912	73.6	5,318	100.0
Liver & Intrahepatic Duct	2	0.7	17	6.0	84	29.9	178	63.4	281	100.0
Pancreas	0	0.0	27	3.2	186	21.9	638	75.0	851	100.0
Lung & Bronchus	0	0.0	126	2.3	1,514	27.4	3,880	70.3	5,520	100.0
Melanoma of the Skin	12	1.0	326	26.2	418	33.6	489	39.3	1,245	100.0
Breast	0	0.0	605	9.7	2,357	37.6	3,300	52.7	6,262	100.0
Uterine Cervix	0	0.0	175	48.2	122	33.6	66	18.2	363	100.0
Uterine Corpus & Unspecified (Endrometrium)	0	0.0	79	6.2	479	37.7	712	56.1	1,270	100.0
Ovary	3	0.4	122	16.4	251	33.6	370	49.6	746	100.0
Prostate	1	<0.1	25	0.4	1,763	28.2	4,457	71.4	6,246	100.0
Urinary Bladder	1	<0.1	54	2.9	405	21.9	1,393	75.2	1,853	100.0
Brain & Other CNS	58	9.5	121	19.9	164	26.9	266	43.7	609	100.0
Hodgkin Disease	28	10.1	127	45.7	66	23.7	57	20.5	278	100.0
Non-Hodgkin Lymphoma	19	1.1	171	10.0	458	26.8	1,062	62.1	1,710	100.0
Multiple Myeloma	0	0.0	14	3.0	116	24.9	336	72.1	466	100.0
Leukemia	71	6.4	84	7.5	227	20.3	734	65.8	1,116	100.0

NOTE: Due to rounding, some percentages may not sum to 100.0

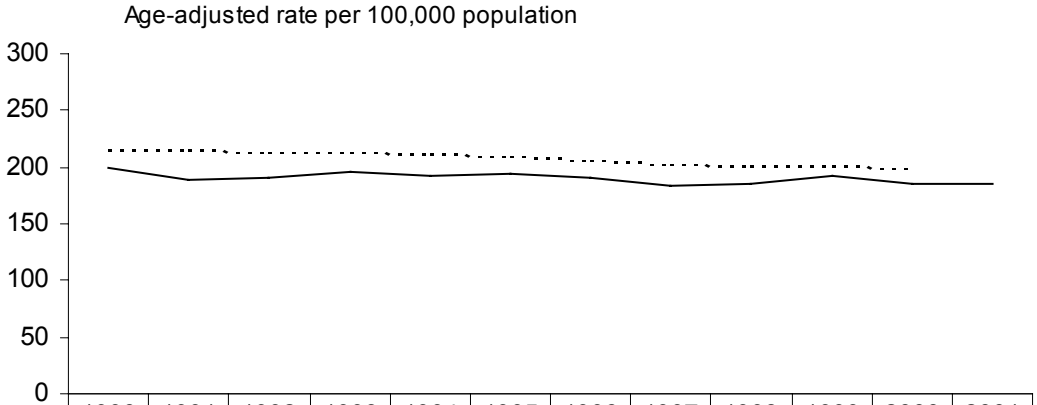
This page intentionally left blank.

CANCER MORTALITY IN NEBRASKA

In 2001, 3,389 Nebraska residents died from cancer, a number that translates into a rate of 185.0 cancer deaths per 100,000 population. These figures represent almost no difference from the state's 2000 figures of 3,380 (cancer deaths) and 186.1 (cancer mortality rate). Cancer was the second leading cause of mortality in Nebraska in 2001, exceeded only by heart disease, and accounted for more than one of every five (22.3%) deaths. By body site, cancers of the lung, breast, prostate, colon and rectum were the most frequently mentioned, accounting for 1,769 (52.2%) of Nebraska's cancer deaths in 2001.

Table 5 presents the number and rate of cancer deaths that occurred among Nebraska residents during 2001 and 1997-2001, for all sites combined and for specific sites. U.S. cancer mortality rates for 2000 are also included. Comparison of state and national rates shows that, for most body sites and for all sites combined, cancer mortality is about the same as or lower in Nebraska than it is in the United States as a whole. Table 6 presents the number of cancer deaths and the mortality rates for 2001 and 1997-2001 by county of residence, with comparable statewide and national rates included. Table 7 presents Nebraska cancer mortality data by race and ethnicity for the years 1990-2001. Table 8 presents the number of Nebraska cancer deaths that occurred during 1997-2001 by age at death. The graph below shows the annual mortality rates for cancer for Nebraska and the United States since 1990.

Cancer (All Sites)
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	199.4	188.9	190.4	195.5	191.9	194.3	189.8	184.3	186.0	191.6	185.4	185.0
United States	214.9	215.1	213.5	213.4	211.7	209.9	207.0	203.6	200.8	200.7	199.6	

TABLE 5: Cancer Mortality
Number of Deaths and Rates, By Site and Gender
Nebraska (2001 and 1997-2001) and US (2000)

SITE	NEBRASKA 2001						NEBRASKA 1997-2001						US 2000		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
All Sites	1,739	227.1	1,650	156.7	3,389	185.0	8,641	233.3	8,049	156.8	16,690	187.7	249.8	167.3	199.6
Oral Cavity & Pharynx	24	3.1	15	1.2	39	2.1	108	2.9	71	1.3	179	2.0	4.1	1.6	2.7
Esophagus	53	6.8	21	1.8	74	4.0	285	7.6	75	1.4	360	4.1	7.7	1.8	4.4
Stomach	33	4.3	23	2.2	56	3.1	171	4.6	121	2.3	292	3.3	6.4	3.2	4.6
Colon & Rectum (Colorectal)	165	21.7	212	18.3	377	20.0	965	26.2	1,017	18.5	1,982	21.8	25.2	17.6	20.8
Liver & Intrahepatic Duct	31	3.9	23	2.1	54	3.0	153	4.0	115	2.3	268	3.1	6.8	2.9	4.7
Pancreas	89	11.5	85	7.7	174	9.5	431	11.6	437	8.3	868	9.7	12.2	9.3	10.6
Lung & Bronchus	561	72.1	383	38.1	944	52.7	2,725	72.6	1,735	35.1	4,460	51.0	76.9	41.2	56.1
Melanoma of the Skin	41	5.3	12	1.4	53	3.0	160	4.2	76	1.6	236	2.7	3.8	1.8	2.7
Breast	3	0.4	255	25.0	258	14.1	11	0.3	1,238	24.8	1,249	14.1	0.4	26.7	15.3
Uterine Cervix	--	--	20	2.1	--	--	--	--	103	2.3	--	--	--	2.8	--

TABLE 5: Cancer Mortality
(Continued)
Number of Deaths and Rates, By Site and Gender
Nebraska (2001 and 1997-2001) and US (2000)

SITE	NEBRASKA 2001						NEBRASKA 1997-2001						US 2000		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	58	5.5	--	--	--	--	207	4.0	--	--	--	4.1	--
Ovary	--	--	91	9.1	--	--	--	--	437	8.8	--	--	--	8.9	--
Prostate	190	26.2	--	--	--	--	1,006	28.6	--	--	--	--	30.6	--	--
Urinary Bladder	51	6.8	23	1.9	74	3.9	235	6.5	114	2.0	349	3.8	7.6	2.3	4.3
Brain & Other CNS	42	5.2	44	4.3	86	4.8	245	6.3	218	4.6	463	5.4	5.6	3.7	4.5
Hodgkin Lymphoma	4	0.5	8	0.8	12	0.7	29	0.8	31	0.6	60	0.7	0.6	0.4	0.5
Non-Hodgkin Lymphoma	68	8.9	68	6.2	136	7.4	379	10.3	398	7.4	777	8.6	10.3	6.7	8.2
Multiple Myeloma	36	4.7	30	2.7	66	3.6	174	4.7	153	2.9	327	3.7	4.7	3.3	3.8
Leukemia	94	12.3	51	4.6	145	7.9	388	10.5	348	6.5	736	8.2	10.3	5.9	7.7

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population
Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. population.

TABLE 6: Cancer (All Sites) Mortality
Number of Deaths and Rates, by County of Residence
Nebraska (2001 and 1997-2001) and US (2000 and 1996-2000)

	2000		1996-2000	
	# Deaths	Rate	# Deaths	Rate
US	NA	199.6	NA	202.3
	2001		1997-2001	
NEBRASKA	3,389	185.0	16,690	187.7
COUNTY				
ADAMS	66	170.8	327	182.2
ANTELOPE	14	126.4	97	179.4
ARTHUR	*	*	3	**
BANNER	*	*	4	**
BLAINE	*	*	8	237.7
BOONE	11	98.4	73	141.4
BOX BUTTE	19	143.3	136	206.1
BOYD	8	210.2	34	157.3
BROWN	9	149.0	46	156.6
BUFFALO	61	151.3	330	180.9
BURT	22	177.3	130	208.3
BUTLER	17	148.1	112	188.3
CASS	39	154.9	219	181.8
CEDAR	21	161.2	91	▼130.8
CHASE	11	154.5	56	185.6
CHERRY	14	172.1	77	184.5
CHEYENNE	23	183.1	123	193.6
CLAY	13	131.8	88	178.1
COLFAX	21	155.3	101	▼110.2
CUMING	20	114.7	122	163.3
CUSTER	38	193.9	157	173.4
DAKOTA	39	233.8	174	208.2
DAWES	12	109.9	86	172.1
DAWSON	46	172.6	235	176.9
DEUEL	9	226.4	31	168.6
DIXON	22	242.0	77	169.7
DODGE	91	196.0	440	190.5
DOUGLAS	887	▲212.6	4,234	▲212.5
DUNDY	*	*	35	195.0
FILLMORE	25	245.8	94	178.9
FRANKLIN	10	163.1	61	185.1
FRONTIER	*	*	24	120.7
FURNAS	17	180.3	84	164.8
GAGE	52	160.1	291	178.4
GARDEN	6	154.6	41	223.1
GARFIELD	8	202.5	35	199.9
GOSPER	6	159.7	26	144.8
GRANT	*	*	3	**
GREELEY	*	*	38	166.5
HALL	108	183.8	534	191.4
HAMILTON	18	167.3	109	184.1
HARLAN	6	115.7	54	181.4
HAYES	6	358.6	17	280.7
HITCHCOCK	*	*	49	201.1
HOLT	23	130.8	139	164.4
HOOKER	*	*	8	110.7
HOWARD	13	150.3	76	167.9

TABLE 6: Cancer (All Sites) Mortality (Continued) Number of Deaths and Rates, by County of Residence Nebraska (2001 and 1997-2001) and US (2000 and 1996-2000)

	2001		1997-2001	
	# Deaths	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	18	134.0	125	190.1
JOHNSON	*	*	64	165.4
KEARNEY	12	135.9	79	193.1
KEITH	26	214.5	107	184.0
KEYA PAHA	*	*	13	175.4
KIMBALL	11	191.3	48	165.0
KNOX	29	199.7	127	160.3
LANCASTER	406	187.3	1,955	188.5
LINCOLN	91	218.8	390	202.2
LOGAN	*	*	8	169.0
LOUP	*	*	11	245.8
McPHERSON	*	*	5	**
MADISON	69	179.6	353	186.3
MERRICK	12	109.3	80	149.9
MORRILL	12	183.1	59	172.9
NANCE	18	299.1	59	209.7
NEMAHA	23	231.7	99	198.7
NUCKOLLS	15	158.7	100	205.0
OTOE	41	205.3	201	196.9
PAWNEE	11	142.3	48	151.8
PERKINS	6	140.5	44	206.1
PHELPS	20	150.8	115	172.6
PIERCE	21	212.3	81	161.2
PLATTE	60	178.4	296	235.4
POLK	16	188.4	71	164.3
RED WILLOW	30	180.5	160	203.4
RICHARDSON	42	283.7	154	209.2
ROCK	*	*	22	156.5
SALINE	28	155.5	149	169.8
SARPY	171	219.2	701	178.3
SAUNDERS	43	182.1	197	168.5
SCOTTS BLUFF	80	166.5	393	177.9
SEWARD	37	192.0	176	183.8
SHERIDAN	16	148.7	84	169.4
SHERMAN	10	197.6	44	167.3
SIOUX	*	*	13	150.3
STANTON	19	284.9	57	196.5
THAYER	21	194.5	96	170.0
THOMAS	*	*	9	287.7
THURSTON	12	173.7	60	170.0
VALLEY	9	101.8	56	140.6
WASHINGTON	31	154.6	195	194.3
WAYNE	10	88.7	56	▼ 105.1
WEBSTER	13	172.4	49	130.1
WHEELER	*	*	11	211.3
YORK	28	148.5	141	152.2

NA = not available
*Number in a given year and rate not shown if based on five or fewer events.
**Rate for combined years not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 7: Cancer Mortality
Number of Deaths and Rates, All Sites and Top Ten Sites, By Race and Ethnicity
Nebraska (1990-2001)

	White			African-American			Native American			Asian/Pacific Islander			Hispanic		
	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate
	All	38,227	188.6	All	1,150	266.9	All	158	202.6	All	103	113.7	All	299	110.4
Rank															
1	Lung & Bronchus	9,991	49.9	Lung & Bronchus	349	79.1	Lung & Bronchus	42	53.5	Lung & Bronchus	21	24.2	Lung & Bronchus	59	23.4
2	Colon & Rectum (Clorectal)	4,683	22.7	Colon & Rectum (Colorectal)	110	27.1	Colon & Rectum (Colorectal)	15	19.7	Pancreas	14	15.1	Colon & Rectum (Colorectal)	33	13.1
3	Breast	3,142	15.8	Breast	102	22.3	Non-Hodgkin Lymphoma	9	10.2	Liver & Intrahepatic Duct	9	7.6	Breast	19	5.2
4	Prostate	2,424	30.5	Prostate	72	54.8	Pancreas	8	11.3	Stomach	7	6.4	Stomach	18	6.4
5	Pancreas	2,002	9.8	Pancreas	59	14.8	Breast	6	7.1	Colon & Rectum (Colorectal)	6	6.1	Non-Hodgkin Lymphoma	15	6.2
6	Non-Hodgkin Lymphoma	1,740	8.5	Stomach	44	10.0	Ovary	6	13.7	Multiple Myeloma	5	*	Liver & Intrahepatic Duct	15	5.7
7	Leukemia	1,590	7.8	Non-Hodgkin Lymphoma	40	9.4	Stomach	5	*	Non-Hodgkin Lymphoma	5	*	Pancreas	13	5.2
8	Brain & Other CNS	1,039	5.4	Leukemia	38	8.5	Liver & Intrahepatic Duct	5	*	Breast	5	*	Leukemia	12	3.0
9	Ovary	997	8.7	Esophagus	34	7.7	Prostate	5	*	Brain & Other CNS	4	*	Uterine Cervix	10	6.1
10	Urinary Bladder	786	3.7	Liver & Intrahepatic Duct	30	6.3	Uterine Cervix	5	*	Leukemia	3	*	Brain & Other CNS	9	2.5

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.
Rates for gender-specific sites (prostate, cervix, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.
* Rate not shown if based on five or fewer deaths

TABLE 8: Cancer Mortality
Number of Deaths and Percentage Distribution, By Site and Age at Diagnosis, Nebraska (1997-2001)

	0-17 Yrs.		18-44 Yrs.		45-64 Yrs.		65 Yrs and Older		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Sites	45	0.3	598	3.6	3,535	21.2	12,512	75.0	16,690	100.0
Oral Cavity & Pharynx	0	0.0	6	3.4	49	27.4	124	69.3	179	100.0
Esophagus	0	0.0	5	1.4	99	27.5	256	71.1	360	100.0
Stomach	0	0.0	10	3.4	63	21.6	219	75.0	292	100.0
Colon & Rectum (Colorectal)	0	0.0	50	2.5	337	17.0	1,595	80.5	1,982	100.0
Liver & Intrahepatic Duct	1	0.4	14	5.2	66	24.6	187	69.8	268	100.0
Pancreas	0	0.0	19	2.2	166	19.1	683	78.7	868	100.0
Lung & Bronchus	0	0.0	93	2.1	1,064	23.9	3,303	74.1	4,460	100.0
Melanoma of the Skin	0	0.0	23	9.7	74	31.4	139	58.9	236	100.0
Breast	0	0.0	79	6.3	353	28.3	817	65.4	1,249	100.0
Uterine Cervix	0	0.0	26	25.2	34	33.0	43	41.7	103	100.0
Uterine Corpus & Unspecified (Endrometrium)	0	0.0	4	1.9	38	18.4	165	79.7	207	100.0
Ovary	0	0.0	15	3.4	111	25.4	311	71.2	437	100.0
Prostate	0	0.0	0	0.0	48	4.8	958	95.2	1,006	100.0
Urinary Bladder	0	0.0	7	2.0	46	13.2	296	84.8	349	100.0
Brain & Other CNS	17	3.7	50	10.8	137	29.6	259	55.9	463	100.0
Hodgkin Disease	0	0.0	15	25.0	12	20.0	33	55.0	60	100.0
Non-Hodgkin Lymphoma	1	0.1	26	3.3	133	17.1	617	79.4	777	100.0
Multiple Myeloma	0	0.0	4	1.2	55	16.8	268	82.0	327	100.0
Leukemia	11	1.5	46	6.3	113	15.4	566	76.9	736	100.0

NOTE: Due to rounding, percentages may not sum to 100.0

This page intentionally left blank.

INCIDENCE AND MORTALITY FOR SELECTED SITES

Lung and Bronchus

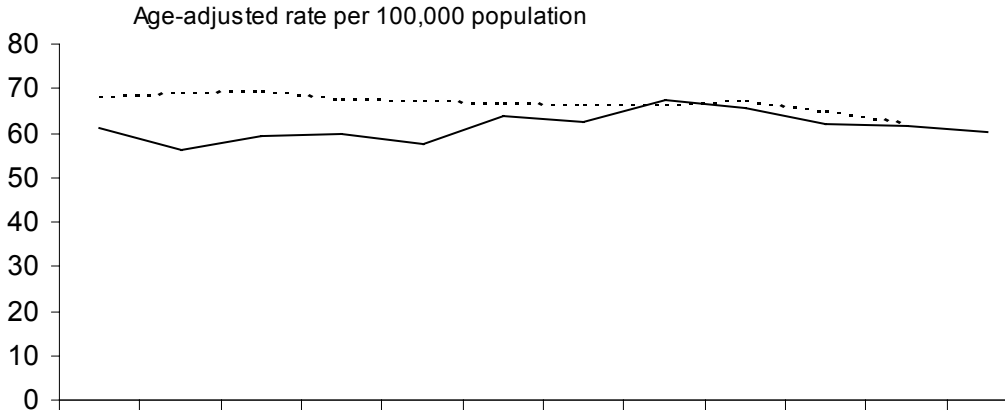
Although lung cancer was only the third most frequently diagnosed cancer among Nebraska residents in 2001, it was the year's leading cause of cancer mortality, accounting for more than 25% of the state's cancer deaths. Men are far more likely than women to get lung cancer and to die from it, both in Nebraska and throughout the United States, although trends since 1990 show that lung cancer incidence and mortality is declining for men but increasing for women. In recent years, lung cancer has averaged around 1,100 diagnoses and almost 900 deaths in Nebraska per year.

Cigarette smoking is the major cause of lung cancer and is estimated to cause 85% of lung cancer deaths. People who smoke two or more packs of cigarettes per day are 15 to 25 times more likely to die from lung cancer than non-smokers. Quitting smoking reduces the risk of dying from lung cancer, although it takes 10-15 years for an ex-smoker's risk to drop to the level of a lifelong non-smoker.

Despite its heavy toll in human lives, both lung cancer incidence and mortality remain lower in Nebraska than in the United States as a whole. In fact, Nebraska's lung cancer mortality rate has been consistently lower than the U.S. rate for several decades. This is undoubtedly attributable to Nebraska's traditionally low smoking prevalence rate. Data gathered in 2001 as part of Nebraska's Behavioral Risk Factor Surveillance System indicate that approximately one in five (20.3%) people 18 years of age and older currently smoke cigarettes.

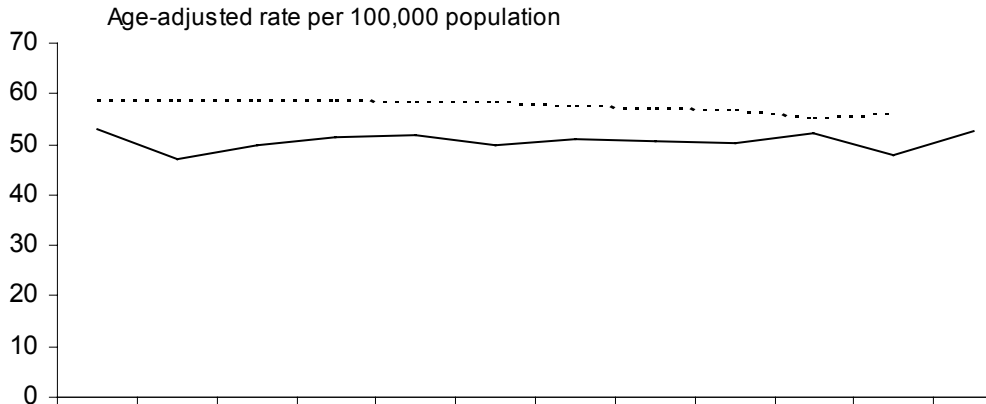
Lung cancer incidence and mortality statistics by county of residence are presented in Appendix I (Table 9).

Lung and Bronchus Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



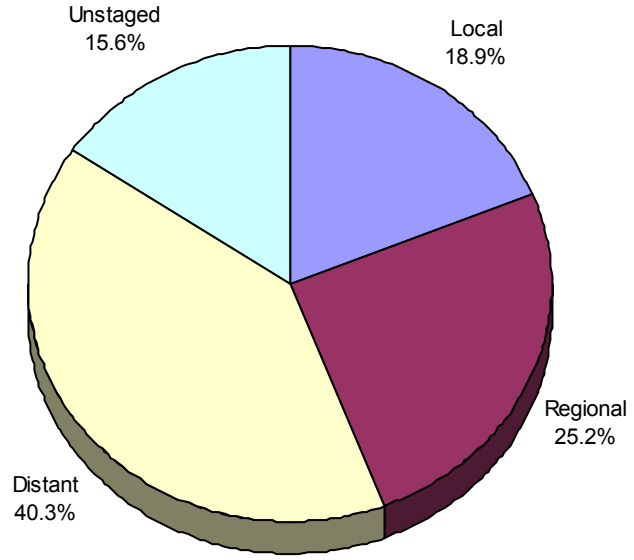
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	61.2	56.4	59.4	59.6	57.6	64.0	62.3	67.3	65.6	62.0	61.6	60.1
United States	68.2	69.4	69.6	67.9	67.3	66.9	66.4	66.6	67.3	65.0	62.3	

Lung and Bronchus Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	52.9	47.2	49.9	51.4	52.0	50.0	51.0	50.6	50.1	52.1	47.9	52.7
United States	58.9	59.0	58.9	59.1	58.5	58.4	57.9	57.5	57.1	55.4	56.1	

Lung and Bronchus Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



Breast (Female only)

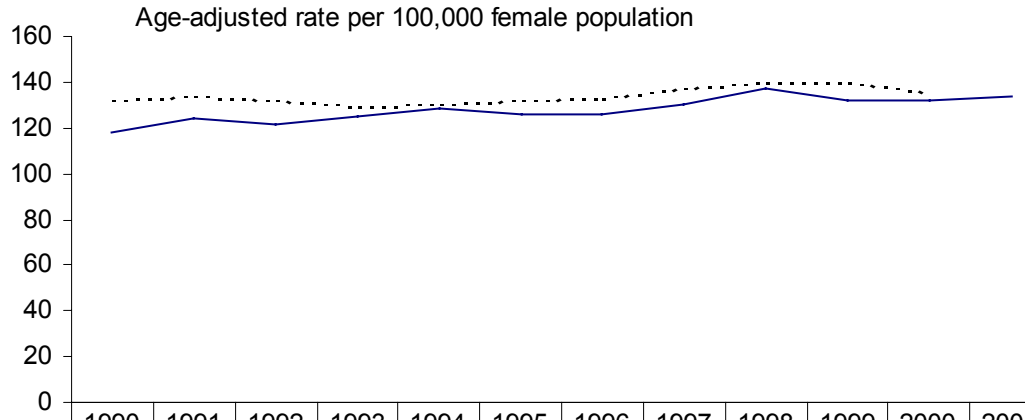
Cancer of the breast is the most common malignancy diagnosed among women and the second most frequent cause of female cancer deaths. In Nebraska, more than 6,200 women were diagnosed with invasive breast cancer and over 1,200 women died from it between 1997 and 2001. Since 1990, the rate of breast cancer deaths has declined substantially, both in Nebraska and nationally, while the rate of breast cancer diagnoses has simultaneously increased. This trend is probably due to increased use of mammography and clinical breast examination (CBE) for breast cancer screening. As more women are screened, more tumors are found, but because they are more likely to be early-stage tumors, they are more treatable and less likely to be fatal.

Age is one of the strongest risk factors for breast cancer. In Nebraska, fewer than one of every five cases diagnosed during 1997-2001 involved a woman under the age of 50, while more than half occurred among women 65 and older. Other risk factors include a personal or family history of breast cancer, some forms of benign breast disease, early menstruation, late menopause, never having children or having a first child after age 30, and for post-menopausal women, obesity.

To date, knowledge about the risk factors for breast cancer has not translated into practical ways to prevent it from occurring. Screening is the only proven method for saving lives that the disease might otherwise claim. The American Cancer Society (ACS) recommends that, for women of average risk, annual mammograms begin at age 40 and continue as long as no serious or chronic health problems are present. The ACS also recommends that CBE be part of a regular physical check-up, about every three years for women 20-39, and annually for women 40 and older. Women who have an increased risk of breast cancer may, after consulting with a physician, want to begin screening earlier and/or have a breast ultrasound or MRI (magnetic resonance imaging) in addition to a regular mammogram.

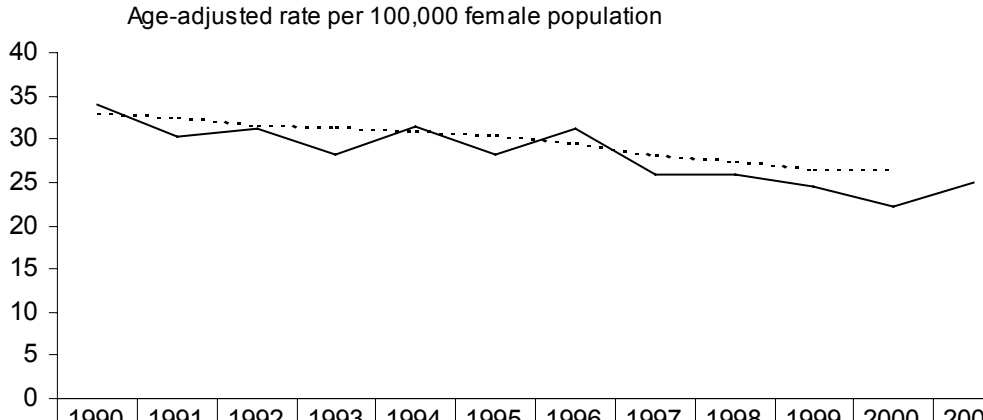
Female breast cancer incidence and mortality statistics by county of residence are presented in Appendix II (Table 10).

Female Breast Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



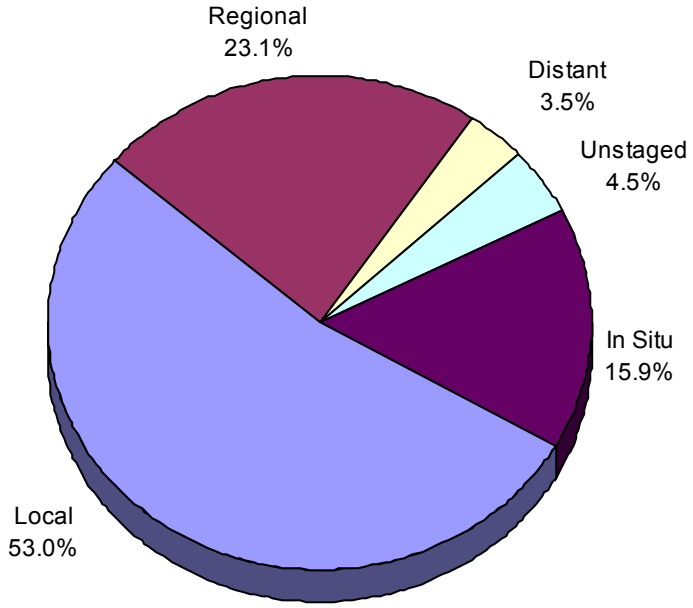
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	118.0	124.4	121.8	124.8	128.7	126.1	126.3	130.0	137.2	131.7	132.4	134.0
United States	131.6	133.5	131.8	129.0	130.6	132.2	133.2	137.1	140.3	139.6	135.1	

Female Breast Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	34.1	30.3	31.1	28.2	31.5	28.3	31.1	26.0	25.9	24.5	22.1	25.0
United States	33.1	32.7	31.6	31.4	30.9	30.6	29.5	28.2	27.5	26.6	26.7	

Female Breast Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



Colon and Rectum (Colorectal)

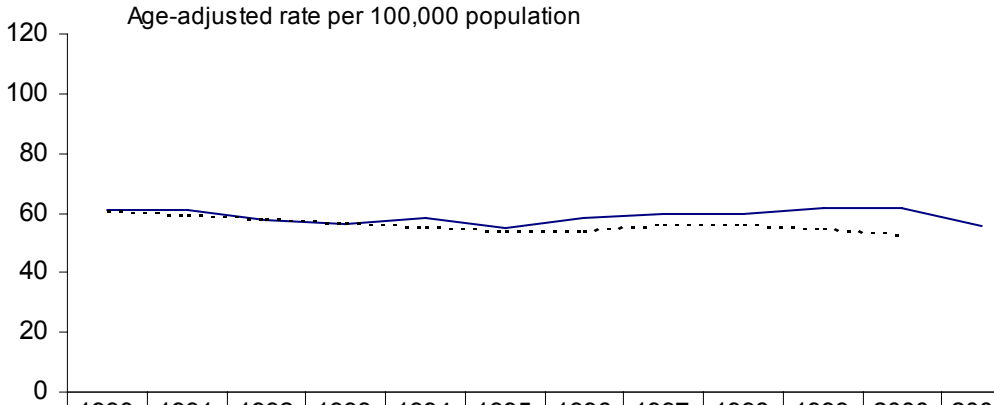
In 2001, colorectal cancer was the fourth most frequently diagnosed cancer among Nebraska residents, accounting for over 1,000 new cases. It was also the second leading cause of cancer mortality in the state, accounting for almost 400 deaths.

The risk of developing colorectal cancer increases with age. In Nebraska, over 70% of the colorectal cancer cases that occurred during 1997-2001 were 65 years of age or older at the time of diagnosis. Other risk factors include a personal or family history of colorectal cancer or polyps, a personal history of chronic inflammatory bowel disease, and certain hereditary colorectal cancer syndromes. Modifiable risk factors include physical inactivity, obesity, smoking, red meat consumption, and having more than one alcoholic drink per day.

At present, screening for asymptomatic polyps and tumors remains the best method for preventing colorectal cancer cases and deaths. The American Cancer Society recommends that, for people of average risk, screening begin at age 50 and follow one of these schedules: 1) a fecal occult blood test every year, 2) flexible sigmoidoscopy every five years, 3) a fecal occult blood test every year and flexible sigmoidoscopy every five years (preferable to either test alone), 4) double-contrast barium enema every five years, or 5) colonoscopy every ten years. People at high risk (i.e., a personal or family history of colorectal cancer or polyps, a personal history of chronic inflammatory bowel disease, or a family history of hereditary colorectal cancer syndromes) should begin screening before age 50 and/or be screened at shorter intervals.

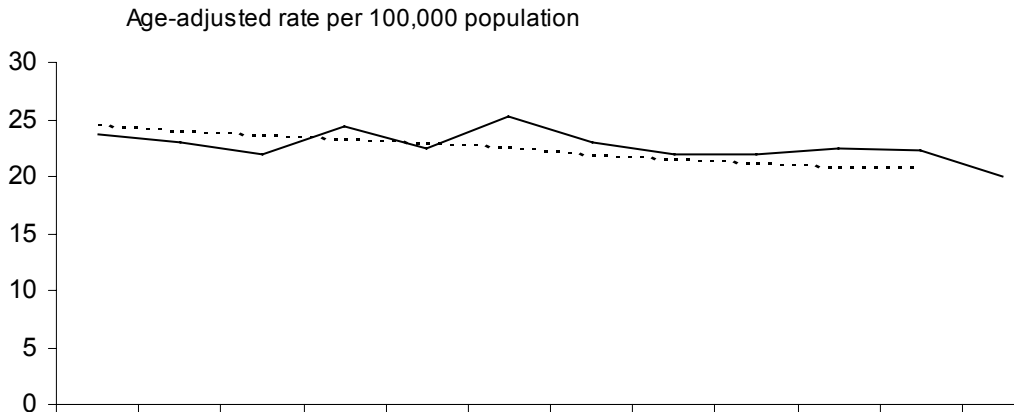
Colorectal cancer incidence and mortality statistics by county of residence are presented in Appendix III (Table 11).

Colorectal Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



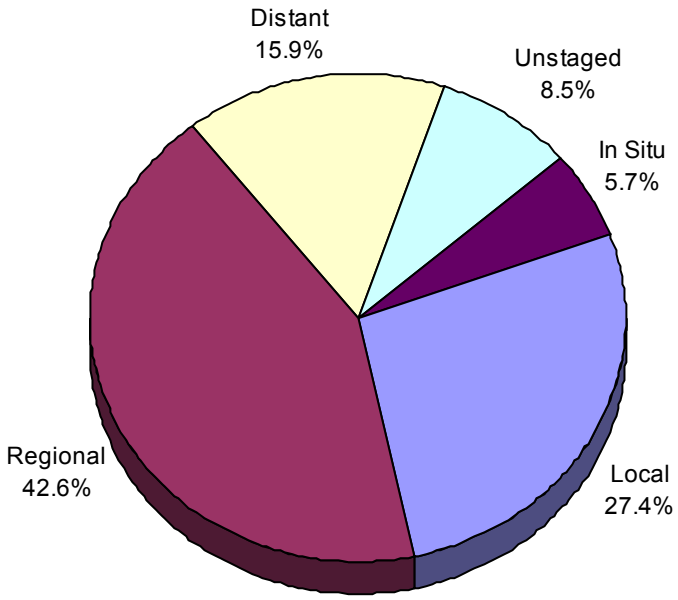
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	61.0	61.2	57.6	56.2	58.6	54.8	58.5	59.7	59.8	61.7	61.4	55.9
United States	60.7	59.5	58.0	56.8	55.7	54.0	54.6	56.3	56.5	54.9	53.1	

Colorectal Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	23.6	23.0	21.9	24.4	22.4	25.3	23.0	21.9	22.0	22.4	22.2	20.0
United States	24.6	24.0	23.6	23.3	22.9	22.6	21.9	21.5	21.2	20.9	20.8	

Colorectal Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



Prostate

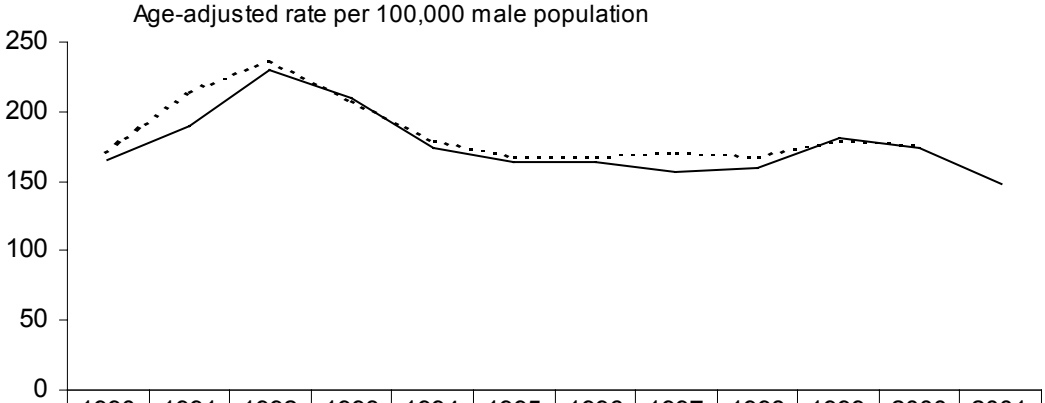
With over 1,100 diagnoses in 2001, prostate cancer was the most common cancer among Nebraska men, accounting for about one of every three new cancer cases. Although survival rates are quite high (nearly 90% of all prostate cancer patients are alive five years after diagnosis), it is also the third leading cause of male cancer deaths, and was responsible for about 1,000 deaths in Nebraska between 1997 and 2001. Since the mid-1990s, prostate cancer death rates have declined, both in Nebraska and throughout the United States.

Little is known about the risk factors for prostate cancer. However, there are two well-known high-risk groups: the elderly (men 65 and older accounted for over 70% of Nebraska diagnoses during 1997-2001) and African-Americans. There also is some evidence that family history of the disease, dietary fat consumption, and occupational exposure to cadmium may each increase the risk of prostate cancer.

Although screening can reduce mortality for some types of cancer (e.g., breast, cervical, colorectal), screening for prostate cancer remains controversial, with many scientists maintaining that its effectiveness is still unproven. The American Cancer Society recommends that health care providers offer the prostate-specific antigen test and a digital rectal exam annually to men age 50 and older who have at least a 10-year life expectancy. Men at higher risk (African-Americans and those who have a first-degree relative diagnosed with prostate cancer at a young age) should begin testing at age 45. Patients should be given information about the benefits and limitations of testing so that they can make an informed decision.

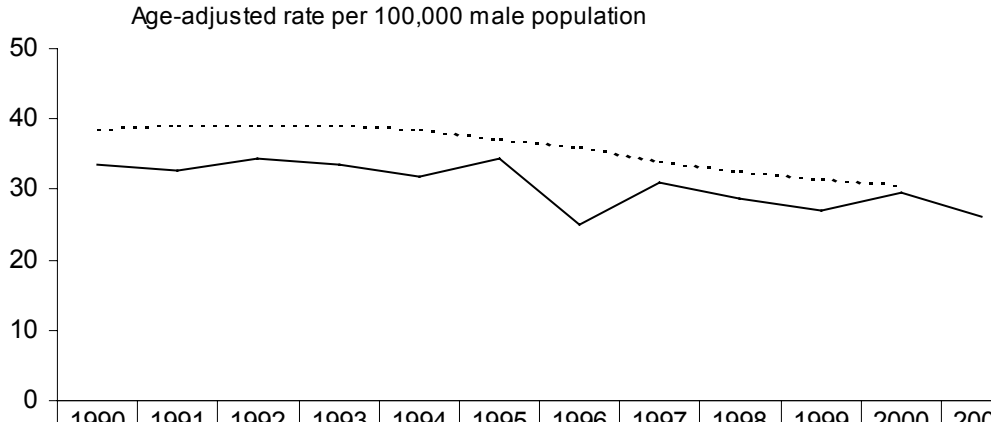
Prostate cancer incidence and mortality statistics by county of residence are presented in Appendix IV (Table 12).

Prostate Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



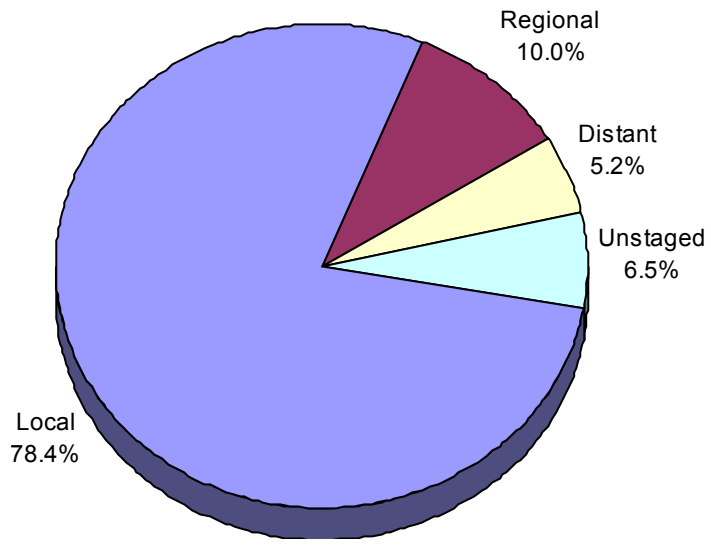
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	165.4	189.9	229.3	209.5	173.6	164.2	163.5	156.9	160.1	180.8	173.2	148.6
..... United States	170.4	214.4	236.8	208.8	179.6	168.1	167.7	171.5	168.2	179.4	176.9	

Prostate Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	33.5	32.8	34.5	33.5	31.9	34.4	25.1	31.0	28.8	26.9	29.6	26.2
..... United States	38.6	39.3	39.2	39.3	38.5	37.3	36.0	34.1	32.6	31.6	30.6	

Prostate Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



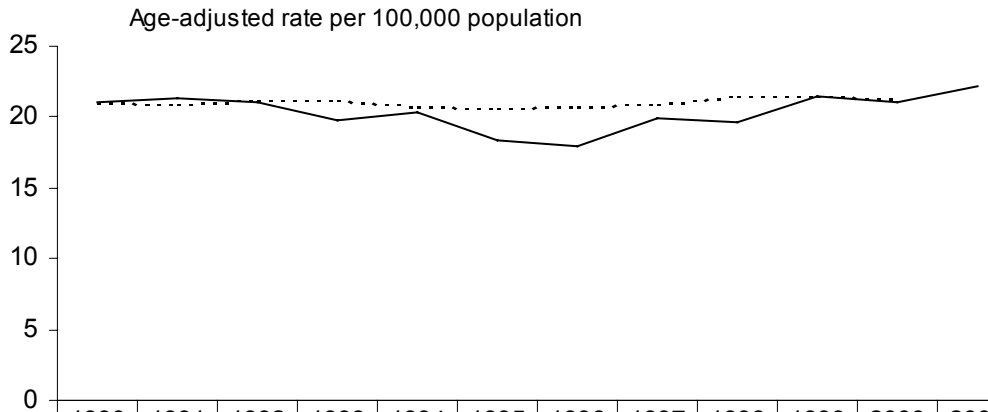
Urinary Bladder

Between 1997 and 2001, more than 1,800 Nebraska residents were diagnosed with bladder cancer. Bladder cancer occurs far more frequently among men than women (by about a 3-to-1 ratio), and now ranks fourth as the most common site of cancer diagnoses among Nebraska men. However, deaths from the disease are much less frequent (349 Nebraska residents died from it during 1997-2001), which is the result of a high percentage of early-stage diagnoses and the existence of effective treatments. Survival prospects have improved considerably in recent decades, to the point where the most current national data show that over 80% of all bladder cancer patients are still alive five years after diagnosis.

Cigarette smoking is the most important known risk factor for bladder cancer. Smokers develop bladder cancer two to three times more often than non-smokers, and estimates suggest that about one-third of all cases are attributable to smoking. Occupational exposures to certain substances used in the manufacture of dyes (benzidine and 2-naphthylamine) also increase the risk of bladder cancer, as does employment in the rubber and leather industries.

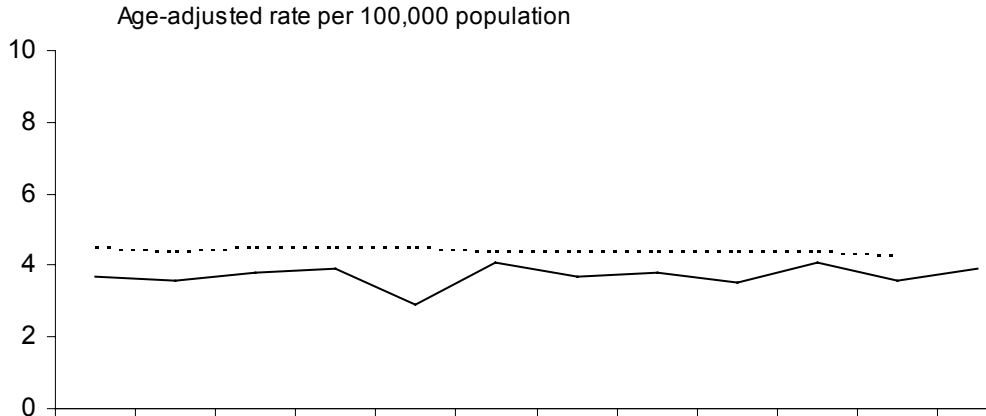
Urinary bladder cancer incidence and mortality statistics by county of residence are presented in Appendix V (Table 13).

Urinary Bladder Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



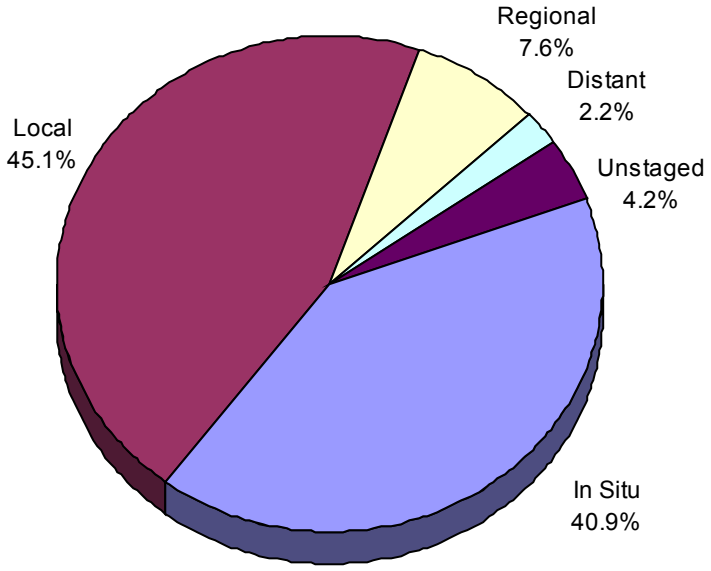
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	21.0	21.3	21.0	19.8	20.3	18.4	18.0	19.9	19.6	21.4	21.1	22.2
United States	21.1	20.9	21.2	21.2	20.8	20.6	20.7	20.9	21.4	21.5	21.3	

Urinary Bladder Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	3.7	3.6	3.8	3.9	2.9	4.1	3.7	3.8	3.5	4.1	3.6	3.9
United States	4.5	4.4	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.3	

Urinary Bladder Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



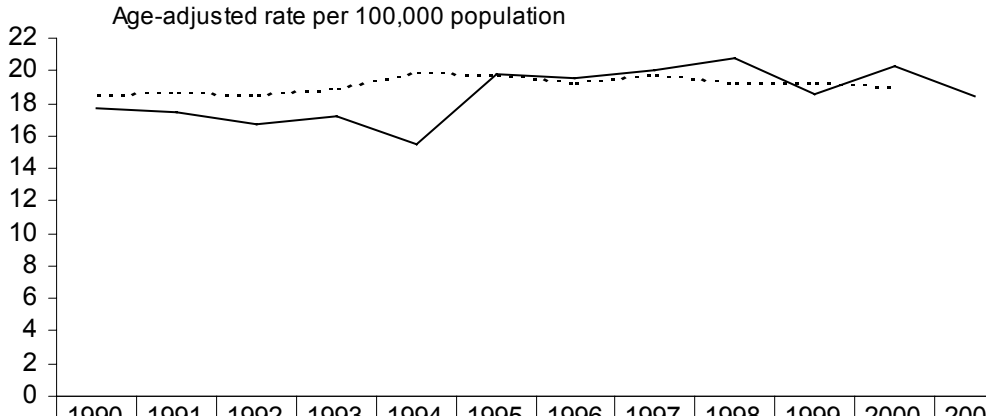
Non-Hodgkin Lymphoma

Lymphomas are cancers that affect the white blood cells of the immune system, and are usually classified as either Hodgkin Disease or Non-Hodgkin lymphoma. Non-Hodgkin lymphoma is by far the more common disorder of the two, accounting for over 1,700 diagnoses and nearly 800 deaths among Nebraska residents between 1997 and 2001 (for Hodgkin Disease, the comparable figures are 276 diagnoses and 60 deaths). National statistics indicate that the incidence rate for Non-Hodgkin lymphoma has increased by about 80% since the mid-1970s, and some of this increase is related to the appearance of AIDS. However, both state and national data show that Non-Hodgkin lymphoma deaths have been increasing since at least 1950, which indicates that factors other than AIDS are also responsible.

The causes of Non-Hodgkin lymphoma are unknown, although there is evidence that viral exposures and reduced immune function are associated with the disease. People whose immune systems have been suppressed by drugs, particularly those who have received an organ transplant, have an extremely high risk of Non-Hodgkin lymphoma, and it also occurs more frequently among people with congenital and acquired immunologic disorders, including AIDS. The increased incidence of the disease among people with congenital disorders of the immune system suggests that hereditary influences may also be a risk factor. Some studies have found that occupational exposure to certain herbicides is a risk factor as well.

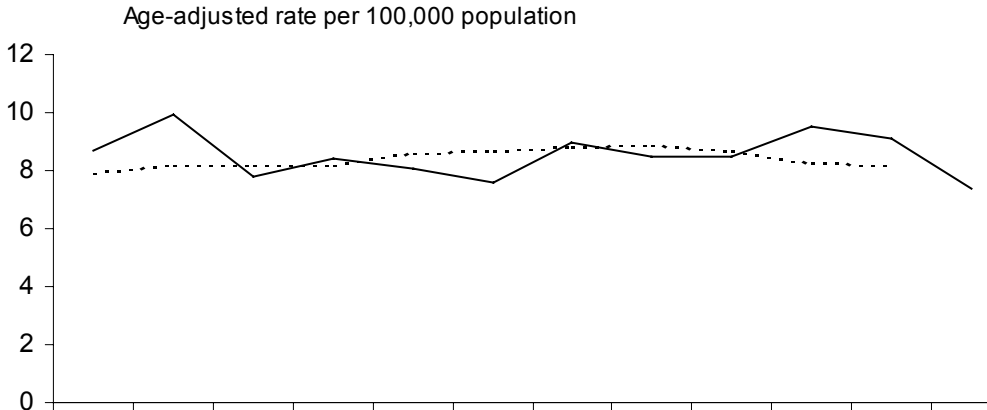
Non-Hodgkin lymphoma incidence and mortality statistics are presented in Appendix VI (Table 14).

Non-Hodgkin Lymphoma
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



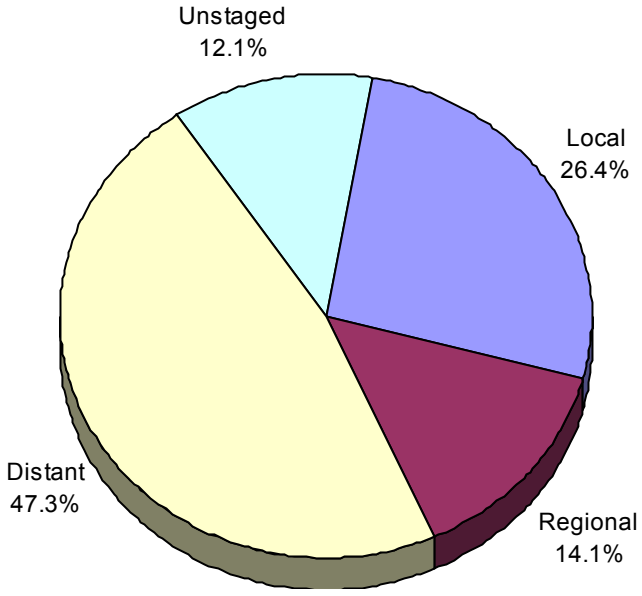
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	17.7	17.5	16.7	17.2	15.5	19.8	19.6	20.0	20.8	18.5	20.3	18.4
..... United States	18.5	18.7	18.6	18.9	19.9	19.8	19.3	19.8	19.3	19.3	19.0	

Non-Hodgkin Lymphoma
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	8.7	9.9	7.8	8.4	8.1	7.6	9.0	8.5	8.5	9.5	9.1	7.4
- - - - - - - United States	7.9	8.2	8.2	8.2	8.6	8.7	8.8	8.9	8.7	8.3	8.2	

Non-Hodgkin Lymphoma
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



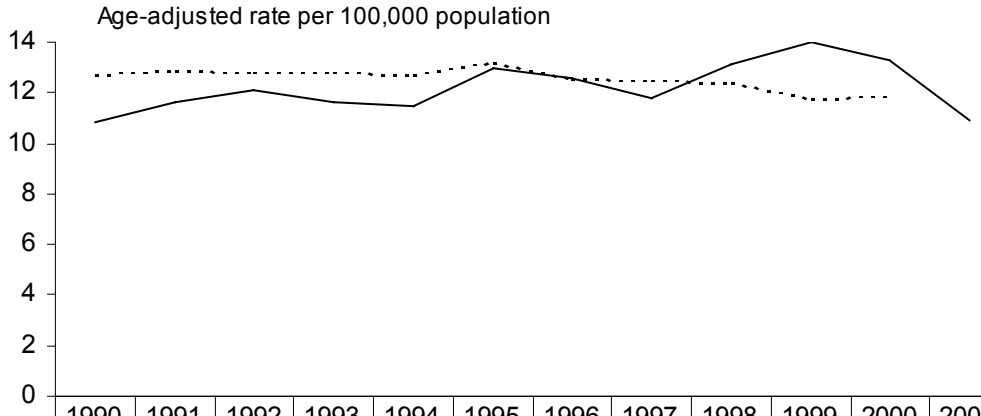
Leukemia

Between 1997 and 2001, leukemia accounted for more than 1,100 diagnoses and over 700 deaths among Nebraska residents. Although it is sometimes thought of as a children's disease, statistics show that this is not strictly true. In fact, about six of every ten leukemia cases that occurred in Nebraska between 1997 and 2001 were 65 years of age or older at diagnosis. At the same time, however, leukemia was also the state's most common type of childhood cancer, accounting for about one-quarter of all cancers diagnosed among Nebraska residents under the age of 18. By type, acute lymphocytic leukemia was the most frequently diagnosed among children, while acute myeloid and chronic lymphocytic were the most common types among adults.

The major causes of most types of leukemia are unknown. Nevertheless, several risk factors have been identified, and include genetic abnormalities (such as Down's syndrome), exposure to ionizing radiation, and workplace exposure to benzene and other related solvents. Adult T-cell leukemia is strongly associated with infection by a retrovirus, HTLV-I (human T-lymphotropic virus, type I). Some evidence also suggests that cigarette smoking is a risk factor for certain types of leukemia.

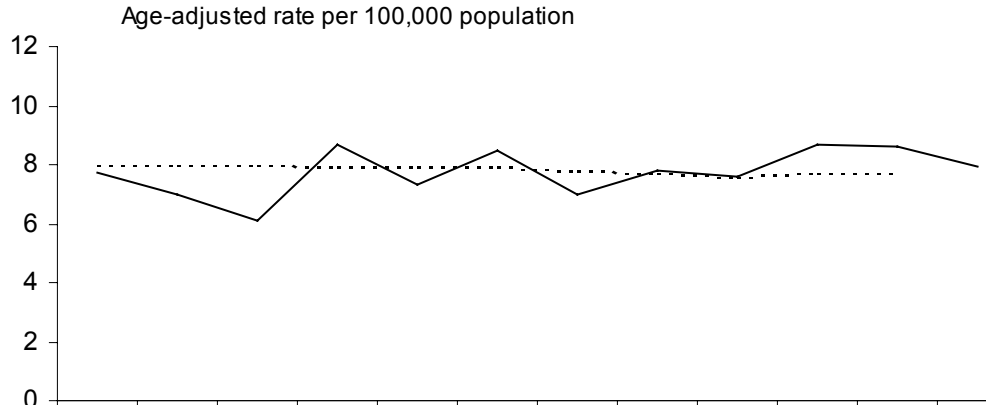
Leukemia incidence and mortality statistics by county of residence are presented in Appendix VII (Table 15).

Leukemia
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



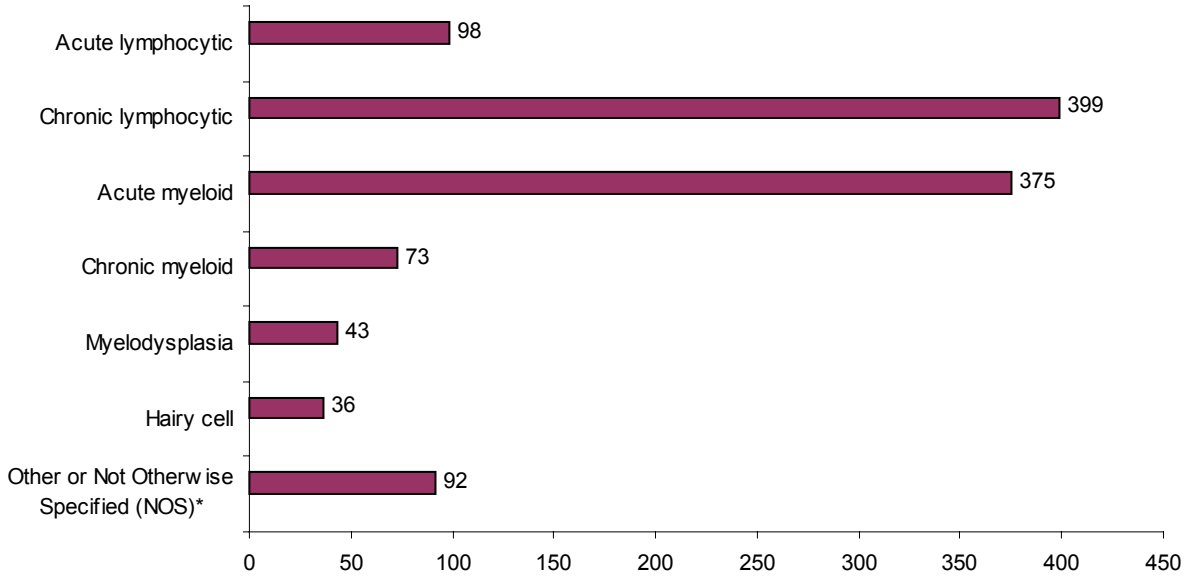
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	10.8	11.6	12.1	11.6	11.5	13.0	12.6	11.8	13.1	14.0	13.3	10.9
..... United States	12.7	12.9	12.8	12.8	12.7	13.2	12.6	12.5	12.4	11.8	11.9	

Leukemia
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
——— Nebraska	7.7	7.0	6.1	8.7	7.3	8.5	7.0	7.8	7.6	8.7	8.6	7.9
..... United States	8.0	8.0	8.0	7.9	7.9	7.9	7.8	7.7	7.6	7.7	7.7	

Number of Leukemia Diagnoses,
By Histologic Type
Nebraska, 1997 – 2001



*includes plasma cell leukemia (1 case); acute leukemia, NOS (33 cases); chronic leukemia, NOS (3 cases); lymphoid leukemia, NOS (14 cases); myeloid leukemia, NOS (11 cases); monocytic leukemia, NOS (1 case); leukemia, NOS (29 cases)

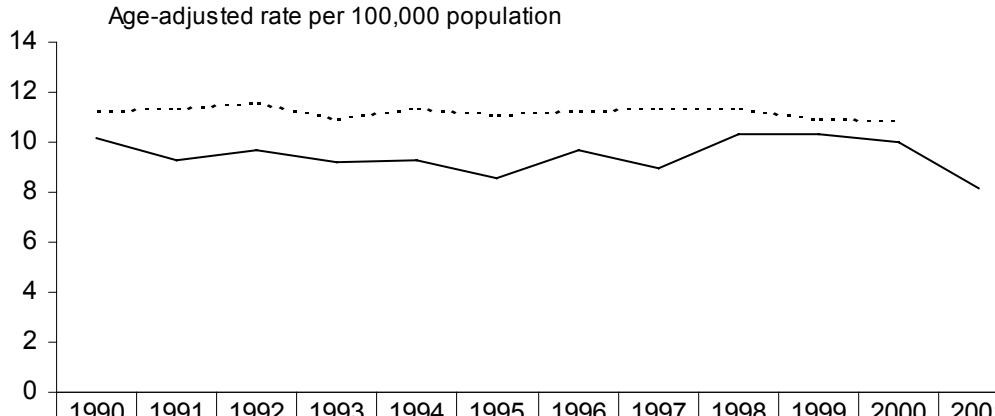
Pancreas

Cancer of the pancreas is not one of the most frequently diagnosed cancers: between 1997 and 2001, it ranked 11th in Nebraska, accounting for 851 new cases. However, with about the same number of deaths attributed to it during the same period, it ranked fifth as the state's leading cause of cancer deaths. This discrepancy is due to the asymptomatic nature of the disease early in its course, which results in a high percentage of late-stage diagnoses, which in turn translates into extremely poor prospects for survival. In fact, the most current national statistics show that barely 20% of people with cancer of the pancreas remain alive even one year after diagnosis.

Little is known about what causes cancer of the pancreas. However, one well-known risk factor is cigarette smoking. Smokers are two to three times more likely to develop the disease than are non-smokers, and it is estimated that smoking is responsible for about 30% of all pancreatic cancer deaths. Other risk factors for cancer of the pancreas include age (about 75% of all 1997-2001 Nebraska cases were 65 or older at diagnosis), African-American race, a high-fat diet, diabetes, chronic pancreatitis, and a family history of the disease.

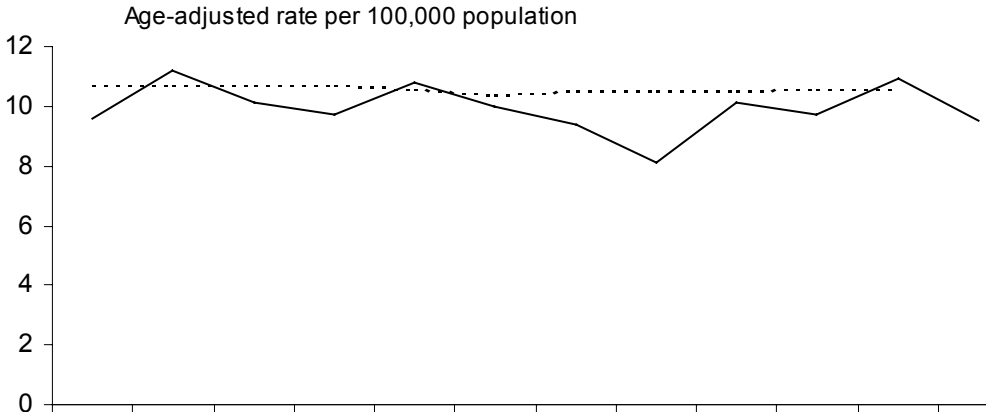
Pancreatic cancer incidence and mortality statistics by county of residence are presented in Appendix VIII (Table 16).

Pancreatic Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



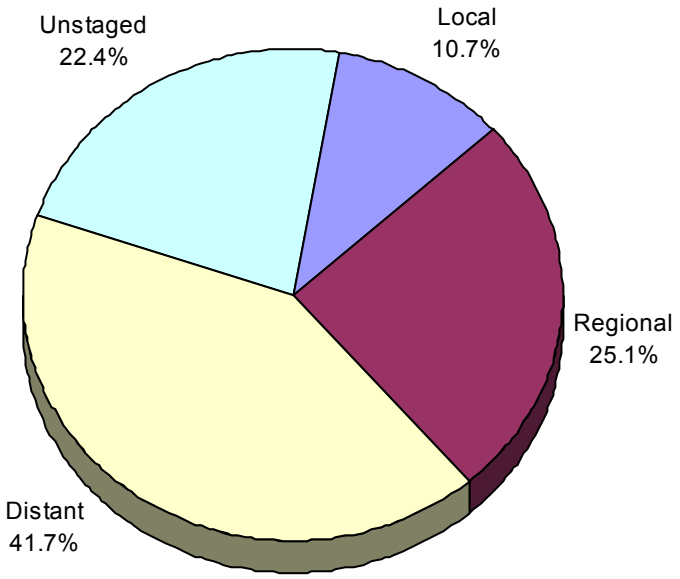
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	10.2	9.3	9.7	9.2	9.3	8.6	9.7	9.0	10.3	10.3	10.0	8.2
United States	11.3	11.4	11.6	11.0	11.4	11.1	11.3	11.4	11.4	11.0	10.9	

Pancreatic Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	9.6	11.2	10.1	9.7	10.8	10.0	9.4	8.1	10.1	9.7	10.9	9.5
United States	10.7	10.7	10.7	10.7	10.6	10.4	10.5	10.5	10.5	10.6	10.6	

Pancreatic Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



Melanoma of the Skin

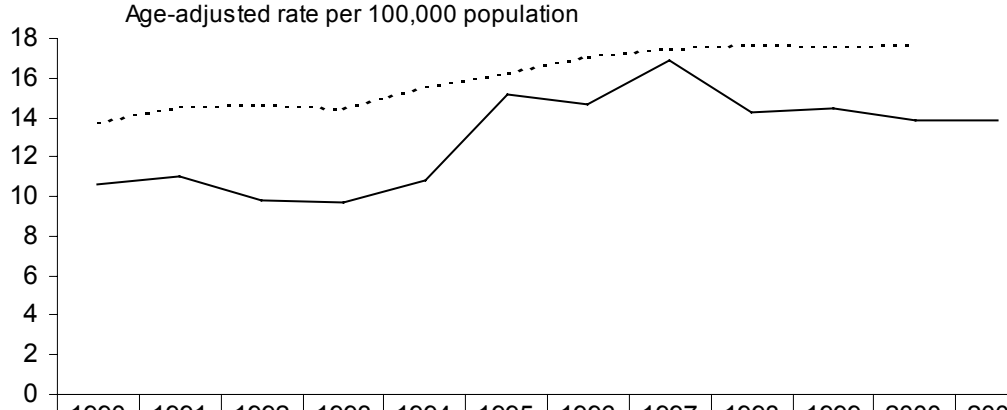
There are several different types of skin cancer, but melanomas are the most serious. Nationally, melanomas comprise only about 5% of all skin cancer diagnoses but about 75% of all skin cancer deaths. In Nebraska, melanomas of the skin accounted for more than 1,200 diagnoses and 200 deaths between 1997 and 2001. The incidence of melanoma has risen dramatically in recent years: in Nebraska, the rate has increased by more than 30% since 1990, while the national rate has doubled in the span of just 20 years.

Melanoma is related to exposure to ultraviolet radiation (most of which comes from the sun), particularly exposures during childhood that resulted in severe sunburns. The risk of developing melanoma is particularly high among people with light skin. Sun exposure is not the only risk factor, however: family history of melanoma and the presence of dysplastic nevi (large moles with irregular coloration and shape) also carry some increased risk.

Skin melanomas are among the most preventable and treatable of all cancers. Wearing protective clothing and using sunscreen are the best methods for preventing the disease, and children in particular should have such protection. In addition, early detection can greatly reduce the risk of melanoma mortality. Recognition of changes in skin growths or the appearance of new growths is the best way to find melanomas early in their development. The American Cancer Society suggests that adults practice skin self-examination regularly, and that suspicious lesions be evaluated promptly by a physician.

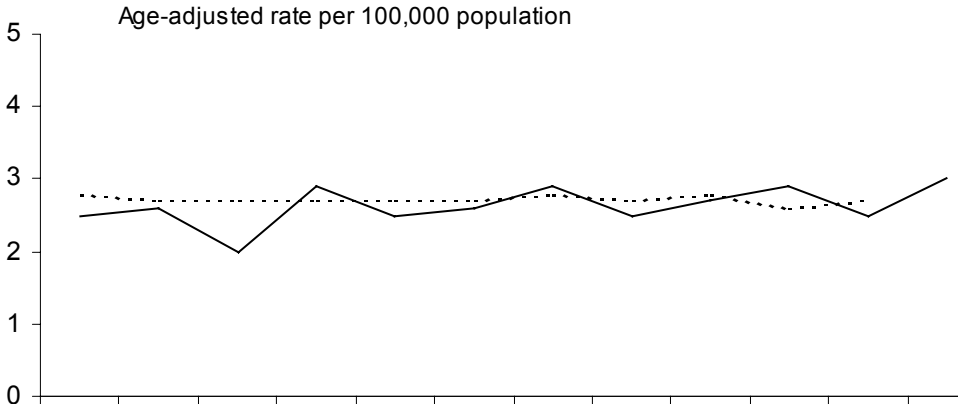
Melanoma of the skin incidence and mortality statistics by county of residence are presented in Appendix IX (Table 17).

Melanoma of the Skin
Incidence Rates, By Year
Nebraska and the United States (1990-2001)



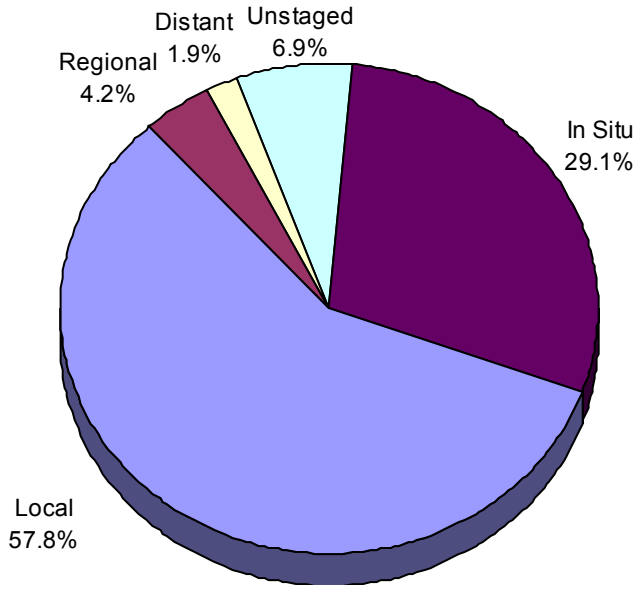
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	10.6	11.0	9.8	9.7	10.8	15.2	14.7	16.9	14.3	14.5	13.9	13.9
United States	13.8	14.6	14.7	14.5	15.6	16.3	17.1	17.5	17.7	17.6	17.7	

Melanoma of the Skin
Mortality Rates, By Year
Nebraska and the United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Nebraska	2.5	2.6	2.0	2.9	2.5	2.6	2.9	2.5	2.7	2.9	2.5	3.0
United States	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.6	2.7	

Melanoma of the Skin
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1997-2001)



This page intentionally left blank.

APPENDICES

TABLE 9: Lung and Bronchus Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	62.3	NA	56.1
NEBRASKA	5,520	63.7	4,460	51.0
COUNTY				
ADAMS	116	68.0	97	55.9
ANTELOPE	28	53.9	29	54.5
ARTHUR	-	-	1	*
BANNER	1	*	-	-
BLAINE	-	-	1	*
BOONE	21	45.7	17	33.4
BOX BUTTE	41	65.9	28	45.8
BOYD	8	37.6	9	39.0
BROWN	7	27.2	7	24.6
BUFFALO	112	63.8	92	52.3
BURT	47	80.8	34	54.9
BUTLER	29	46.9	25	42.1
CASS	68	56.8	67	55.4
CEDAR	29	47.2	18	28.3
CHASE	15	48.8	14	46.7
CHERRY	16	39.7	15	37.4
CHEYENNE	28	43.7	31	47.9
CLAY	28	58.7	24	49.4
COLFAX	27	▼32.6	20	▼24.0
CUMING	18	▼25.1	22	31.8
CUSTER	46	53.0	39	45.0
DAKOTA	76	91.4	53	64.4
DAWES	29	60.5	27	52.9
DAWSON	76	57.6	56	42.2
DEUEL	7	42.6	10	57.3
DIXON	20	46.3	16	35.5
DODGE	147	65.5	118	51.6
DOUGLAS	1,605	▲80.3	1,248	▲62.6
DUNDY	6	33.4	7	38.3
FILLMORE	30	61.8	28	54.7
FRANKLIN	25	85.8	21	66.9
FRONTIER	6	33.9	4	*
FURNAS	28	61.8	20	44.5
GAGE	81	52.7	68	42.8
GARDEN	13	74.3	11	58.8
GARFIELD	7	44.3	5	*
GOSPER	8	42.0	5	*
GRANT	1	*	1	*
GREELEY	12	62.1	7	31.8
HALL	197	71.4	149	53.9
HAMILTON	29	52.1	28	49.3
HARLAN	17	63.6	16	59.0
HAYES	5	*	6	100.7
HITCHCOCK	13	53.9	14	57.3
HOLT	40	46.7	36	41.7
HOOKER	2	*	1	*
HOWARD	18	43.2	20	46.3

TABLE 9: Lung and Bronchus Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	18	▼26.4	22	32.0
JOHNSON	19	51.6	17	41.9
KEARNEY	23	59.4	21	56.1
KEITH	34	57.9	25	41.7
KEYA PAHA	1	*	2	*
KIMBALL	21	70.6	16	55.3
KNOX	30	37.7	23	28.7
LANCASTER	643	63.0	539	52.5
LINCOLN	143	74.3	115	59.4
LOGAN	1	*	-	-
LOUP	-	-	2	*
McPHERSON	1	*	2	*
MADISON	122	68.0	87	49.2
MERRICK	26	54.0	28	58.2
MORRILL	12	35.6	14	42.6
NANCE	20	74.6	14	51.8
NEMAHA	31	66.1	30	62.8
NUCKOLLS	25	52.4	30	61.5
OTOE	52	53.8	37	37.4
PAWNEE	18	66.7	14	47.5
PERKINS	12	63.6	8	41.3
PHELPS	33	54.7	26	42.0
PIERCE	22	45.9	12	24.5
PLATTE	100	79.4	74	59.8
POLK	17	41.6	13	30.2
RED WILLOW	51	66.5	43	55.0
RICHARDSON	46	62.6	36	49.4
ROCK	7	55.8	7	54.1
SALINE	51	60.8	40	48.2
SARPY	268	65.5	200	49.6
SAUNDERS	68	60.0	59	51.7
SCOTTS BLUFF	127	59.7	111	50.7
SEWARD	49	52.5	42	44.7
SHERIDAN	21	43.8	18	35.1
SHERMAN	12	46.6	5	*
SIOUX	5	*	7	79.4
STANTON	14	51.1	13	46.6
THAYER	15	▼25.5	16	27.1
THOMAS	2	*	-	-
THURSTON	17	50.2	13	39.0
VALLEY	19	52.3	17	42.3
WASHINGTON	56	57.5	43	43.9
WAYNE	20	40.3	11	▼21.7
WEBSTER	18	54.7	9	24.2
WHEELER	1	*	1	*
YORK	46	51.0	33	35.0

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 10: Female Breast Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	135.1	NA	26.7
NEBRASKA	6,216	133.9	1,238	24.8
COUNTY				
ADAMS	112	121.9	16	17.8
ANTELOPE	36	130.9	9	30.2
ARTHUR	1	*	-	-
BANNER	3	*	-	-
BLAINE	2	*	-	-
BOONE	40	182.5	8	22.5
BOX BUTTE	38	115.6	7	19.7
BOYD	12	104.3	-	-
BROWN	20	158.8	3	*
BUFFALO	129	133.6	25	22.7
BURT	36	125.8	7	26.6
BUTLER	37	130.2	9	23.5
CASS	79	122.1	12	18.0
CEDAR	36	104.7	5	*
CHASE	23	151.9	2	*
CHERRY	26	127.2	6	28.8
CHEYENNE	38	118.1	7	20.1
CLAY	28	110.5	3	*
COLFAX	43	108.6	4	*
CUMING	32	▼77.2	15	32.5
CUSTER	41	91.8	11	24.0
DAKOTA	61	136.6	14	29.0
DAWES	32	136.8	7	27.1
DAWSON	89	124.4	23	30.5
DEUEL	13	212.1	-	-
DIXON	17	82.8	3	*
DODGE	151	132.1	33	26.1
DOUGLAS	1,632	143.5	342	29.2
DUNDY	7	69.2	2	*
FILLMORE	27	106.0	9	31.7
FRANKLIN	25	169.2	4	*
FRONTIER	6	67.4	2	*
FURNAS	19	92.5	4	*
GAGE	129	156.5	18	20.4
GARDEN	20	261.5	5	*
GARFIELD	12	142.5	4	*
GOSPER	4	*	1	*
GRANT	1	*	-	-
GREELEY	15	138.4	5	*
HALL	191	133.4	40	25.0
HAMILTON	33	110.5	9	25.1
HARLAN	19	113.8	4	*
HAYES	3	*	2	*
HITCHCOCK	15	149.2	4	*
HOLT	45	111.7	11	29.6
HOOKER	5	*	-	-
HOWARD	19	98.5	6	22.6

TABLE 10: Female Breast Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	27	80.8	9	25.2
JOHNSON	21	105.1	4	*
KEARNEY	19	88.0	7	32.3
KEITH	33	109.7	11	35.4
KEYA PAHA	6	181.1	-	-
KIMBALL	25	175.0	3	*
KNOX	27	▼76.3	1	*
LANCASTER	816	141.9	161	26.6
LINCOLN	136	135.2	32	30.8
LOGAN	6	230.2	2	*
LOUP	2	*	-	-
McPHERSON	3	*	1	*
MADISON	145	147.4	23	21.2
MERRICK	36	137.7	3	*
MORRILL	17	105.3	4	*
NANCE	28	174.0	7	38.0
NEMAHA	36	149.1	4	*
NUCKOLLS	27	119.6	8	30.8
OTOE	76	143.7	13	22.6
PAWNEE	22	152.8	3	*
PERKINS	13	129.7	5	*
PHELPS	43	129.4	7	22.4
PIERCE	35	128.4	6	20.6
PLATTE	136	187.5	18	25.3
POLK	15	76.3	4	*
RED WILLOW	42	122.7	12	29.2
RICHARDSON	42	124.3	11	24.4
ROCK	6	129.5	-	-
SALINE	49	114.5	11	23.0
SARPY	337	140.7	57	24.5
SAUNDERS	83	149.3	15	22.1
SCOTTS BLUFF	136	124.1	25	21.0
SEWARD	67	135.0	9	13.2
SHERIDAN	19	87.4	7	28.3
SHERMAN	11	86.7	4	*
SIOUX	4	*	1	*
STANTON	22	130.5	3	*
THAYER	29	135.7	7	24.3
THOMAS	2	*	-	-
THURSTON	14	90.0	-	-
VALLEY	16	96.5	5	*
WASHINGTON	63	119.9	12	22.9
WAYNE	28	102.4	7	21.0
WEBSTER	23	162.0	2	*
WHEELER	6	234.7	-	-
YORK	65	139.3	13	28.0

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 female population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 11: Colon and Rectum (Colorectal) Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	53.1	NA	20.8
NEBRASKA	5,318	60.1	1,982	21.8
COUNTY				
ADAMS	100	54.6	47	24.7
ANTELOPE	24	44.7	17	29.5
ARTHUR	-	-	-	-
BANNER	2	*	-	-
BLAINE	1	*	2	*
BOONE	34	74.8	8	14.7
BOX BUTTE	38	56.6	17	25.9
BOYD	9	45.1	8	39.6
BROWN	13	49.9	4	*
BUFFALO	102	55.6	33	18.0
BURT	40	68.6	17	25.5
BUTLER	36	51.9	14	23.4
CASS	73	60.6	29	24.0
CEDAR	49	68.7	21	28.2
CHASE	16	52.9	10	30.8
CHERRY	23	57.9	15	33.1
CHEYENNE	32	51.5	12	17.8
CLAY	31	70.2	15	27.5
COLFAX	36	42.3	12	12.5
CUMING	36	47.6	17	20.6
CUSTER	52	61.8	17	19.9
DAKOTA	64	76.6	24	28.9
DAWES	34	67.3	9	16.7
DAWSON	57	43.2	23	17.6
DEUEL	9	47.3	5	*
DIXON	20	44.9	6	14.2
DODGE	182	80.0	72	29.6
DOUGLAS	1,285	64.5	458	23.2
DUNDY	9	61.1	4	*
FILLMORE	24	40.2	12	19.3
FRANKLIN	21	65.5	10	28.2
FRONTIER	14	73.6	5	*
FURNAS	22	48.8	10	16.6
GAGE	74	45.7	34	18.3
GARDEN	17	108.1	3	*
GARFIELD	13	70.2	4	*
GOSPER	9	46.5	4	*
GRANT	1	*	-	-
GREELEY	14	66.7	4	*
HALL	165	59.0	64	22.4
HAMILTON	20	34.6	14	24.2
HARLAN	14	47.6	11	33.6
HAYES	1	*	1	*
HITCHCOCK	11	40.3	5	*
HOLT	59	77.2	20	21.8
HOOKER	5	*	-	-
HOWARD	18	39.9	8	17.2

TABLE 11: Colon and Rectum (Colorectal) Cancer Incidence and Mortality
(Continued)
Numbers of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	43	72.4	13	22.0
JOHNSON	31	77.0	10	24.5
KEARNEY	28	66.8	11	24.5
KEITH	33	57.0	8	13.4
KEYA PAHA	3	*	2	*
KIMBALL	16	55.5	4	*
KNOX	58	76.1	16	19.5
LANCASTER	633	61.2	212	20.4
LINCOLN	121	63.6	47	24.1
LOGAN	-	-	1	*
LOUP	3	*	4	*
McPHERSON	1	*	1	*
MADISON	129	69.1	40	21.6
MERRICK	34	65.5	11	18.7
MORRILL	17	45.6	3	*
NANCE	30	101.0	8	28.3
NEMAHA	36	70.0	15	26.5
NUCKOLLS	29	62.4	7	14.4
OTOE	65	64.0	26	23.4
PAWNEE	23	78.5	8	21.2
PERKINS	10	46.3	5	*
PHELPS	29	44.7	19	26.1
PIERCE	30	57.6	8	16.7
PLATTE	110	83.8	47	37.1
POLK	29	74.3	5	*
RED WILLOW	47	61.0	16	21.3
RICHARDSON	49	68.9	22	29.6
ROCK	8	61.3	6	45.6
SALINE	65	72.8	22	22.4
SARPY	208	52.3	70	19.4
SAUNDERS	60	52.7	22	19.5
SCOTTS BLUFF	112	50.5	42	18.3
SEWARD	59	61.5	20	20.3
SHERIDAN	27	61.2	10	21.5
SHERMAN	9	29.2	5	*
SIOUX	1	*	1	*
STANTON	11	35.5	4	*
THAYER	23	45.0	14	29.0
THOMAS	4	*	-	-
THURSTON	20	56.5	8	22.2
VALLEY	11	28.8	4	*
WASHINGTON	50	49.7	21	20.1
WAYNE	22	43.4	8	15.5
WEBSTER	17	54.9	8	20.0
WHEELER	2	*	2	*
YORK	63	67.3	21	20.6

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 12: Prostate Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	176.9	NA	30.6
NEBRASKA	6,246	165.2	1,006	28.6
COUNTY				
ADAMS	96	132.9	24	35.1
ANTELOPE	35	152.3	4	*
ARTHUR	3	*	-	-
BANNER	5	*	1	*
BLAINE	2	*	-	-
BOONE	37	166.9	4	*
BOX BUTTE	60	224.1	7	24.6
BOYD	12	100.6	1	*
BROWN	18	148.8	6	47.6
BUFFALO	163	211.9	17	22.4
BURT	52	196.4	6	21.5
BUTLER	46	180.4	11	42.0
CASS	75	133.1	13	27.4
CEDAR	60	198.8	6	18.6
CHASE	26	191.2	5	*
CHERRY	17	96.9	2	*
CHEYENNE	55	202.8	6	22.8
CLAY	40	180.8	7	30.6
COLFAX	54	150.8	7	16.1
CUMING	42	125.4	10	29.7
CUSTER	83	219.2	12	27.7
DAKOTA	31	▼85.5	12	37.9
DAWES	36	180.4	10	48.4
DAWSON	89	150.8	18	32.7
DEUEL	17	226.8	3	*
DIXON	17	87.2	8	38.0
DODGE	175	182.9	17	18.0
DOUGLAS	1,303	156.8	217	32.4
DUNDY	13	175.1	3	*
FILLMORE	40	184.4	5	*
FRANKLIN	24	172.9	6	38.5
FRONTIER	11	132.0	1	*
FURNAS	31	180.0	8	38.9
GAGE	73	▼112.1	20	30.1
GARDEN	12	148.3	2	*
GARFIELD	19	261.3	2	*
GOSPER	15	169.1	3	*
GRANT	3	*	-	-
GREELEY	24	249.9	3	*
HALL	219	181.2	34	29.3
HAMILTON	53	212.4	13	58.2
HARLAN	18	133.4	-	-
HAYES	2	*	2	*
HITCHCOCK	16	156.4	2	*
HOLT	77	206.9	10	26.2
HOOKER	5	*	1	*
HOWARD	32	163.6	9	47.5

TABLE 12: Prostate Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	32	113.6	8	27.4
JOHNSON	23	156.4	6	40.9
KEARNEY	30	167.8	5	*
KEITH	49	183.5	5	*
KEYA PAHA	1	*	4	*
KIMBALL	35	248.0	2	*
KNOX	68	200.8	12	31.5
LANCASTER	748	173.3	108	29.5
LINCOLN	116	138.0	23	28.9
LOGAN	2	*	-	-
LOUP	3	*	1	*
McPHERSON	4	*	-	-
MADISON	166	218.1	23	29.4
MERRICK	47	205.7	7	27.3
MORRILL	41	273.5	5	*
NANCE	19	141.7	2	*
NEMAHA	36	173.0	5	*
NUCKOLLS	19	94.5	5	*
OTOE	71	167.3	10	22.6
PAWNEE	26	188.4	2	*
PERKINS	11	114.3	2	*
PHELPS	51	191.8	7	22.7
PIERCE	27	123.2	6	27.8
PLATTE	126	227.8	21	45.9
POLK	23	125.6	10	50.1
RED WILLOW	54	163.0	13	40.5
RICHARDSON	51	166.0	9	27.1
ROCK	13	216.3	2	*
SALINE	67	186.4	8	20.5
SARPY	289	158.2	38	32.4
SAUNDERS	79	151.4	14	26.5
SCOTTS BLUFF	158	158.7	14	14.4
SEWARD	51	127.0	11	27.3
SHERIDAN	35	158.2	5	*
SHERMAN	20	171.0	5	*
SIOUX	2	*	-	-
STANTON	20	154.3	6	48.3
THAYER	49	206.9	4	*
THOMAS	4	*	1	*
THURSTON	26	165.2	6	35.0
VALLEY	34	203.4	5	*
WASHINGTON	71	160.2	10	24.9
WAYNE	32	152.2	3	*
WEBSTER	22	153.5	3	*
WHEELER	6	220.9	1	*
YORK	53	135.8	11	28.2

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 male population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 13: Urinary Bladder Cancer Incidence and Mortality

Numbers of Cases, Deaths, and Rates, By County of Residence, Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	21.3	NA	4.3
NEBRASKA	1,853	21.0	349	3.8
COUNTY				
ADAMS	43	24.7	5	*
ANTELOPE	6	13.2	2	*
ARTHUR	4	*	-	-
BANNER	-	-	-	-
BLAINE	1	*	1	*
BOONE	3	*	1	*
BOX BUTTE	22	31.9	6	8.5
BOYD	4	*	2	*
BROWN	7	27.5	1	*
BUFFALO	58	31.0	5	*
BURT	15	26.3	2	*
BUTLER	11	19.3	-	-
CASS	26	21.3	1	*
CEDAR	10	14.5	1	*
CHASE	3	*	-	-
CHERRY	4	*	1	*
CHEYENNE	19	30.1	1	*
CLAY	13	27.7	2	*
COLFAX	9	10.8	1	*
CUMING	9	13.9	3	*
CUSTER	20	21.4	5	*
DAKOTA	12	13.6	2	*
DAWES	11	24.4	4	*
DAWSON	30	22.0	5	*
DEUEL	3	*	-	-
DIXON	11	24.6	3	*
DODGE	43	18.9	10	3.9
DOUGLAS	386	19.4	84	4.2
DUNDY	4	*	2	*
FILLMORE	16	33.7	-	-
FRANKLIN	9	26.2	1	*
FRONTIER	5	*	-	-
FURNAS	10	18.0	-	-
GAGE	27	16.4	7	3.9
GARDEN	11	69.8	-	-
GARFIELD	1	*	1	*
GOSPER	8	44.7	-	-
GRANT	-	-	-	-
GREELEY	3	*	1	*
HALL	77	27.8	13	4.6
HAMILTON	13	21.8	-	-
HARLAN	8	25.5	4	*
HAYES	1	*	-	-
HITCHCOCK	4	*	-	-
HOLT	19	20.5	6	6.0
HOOKER	2	*	-	-
HOWARD	12	28.1	1	*

TABLE 13: Urinary Bladder Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	13	20.5	3	*
JOHNSON	9	24.0	2	*
KEARNEY	12	27.4	3	*
KEITH	16	27.4	2	*
KEYA PAHA	1	*	1	*
KIMBALL	7	21.2	1	*
KNOX	22	27.4	4	*
LANCASTER	220	21.4	39	3.7
LINCOLN	44	23.2	8	4.3
LOGAN	1	*	1	*
LOUP	-	-	-	-
McPHERSON	1	*	-	-
MADISON	54	28.0	12	5.4
MERRICK	17	29.6	3	*
MORRILL	11	34.7	-	-
NANCE	2	*	-	-
NEMAHA	4	*	4	*
NUCKOLLS	8	15.1	1	*
OTOE	21	20.9	7	6.0
PAWNEE	7	23.7	3	*
PERKINS	5	*	1	*
PHELPS	16	24.7	2	*
PIERCE	12	21.5	3	*
PLATTE	27	21.4	5	*
POLK	6	12.7	1	*
RED WILLOW	13	16.0	2	*
RICHARDSON	9	13.2	2	*
ROCK	2	*	1	*
SALINE	9	10.4	2	*
SARPY	78	19.9	15	4.6
SAUNDERS	9	▼8.0	6	5.1
SCOTTS BLUFF	72	33.3	14	6.1
SEWARD	18	18.3	3	*
SHERIDAN	8	20.1	2	*
SHERMAN	4	*	2	*
SIOUX	1	*	-	-
STANTON	6	21.6	-	-
THAYER	9	15.2	-	-
THOMAS	1	*	-	-
THURSTON	2	*	-	-
VALLEY	7	16.8	4	*
WASHINGTON	14	13.6	3	*
WAYNE	7	12.2	1	*
WEBSTER	10	26.3	2	*
WHEELER	3	*	-	-
YORK	22	24.8	-	-

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 14: Non-Hodgkin Lymphoma Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	19.0	NA	8.2
NEBRASKA	1,710	19.7	777	8.6
COUNTY				
ADAMS	36	20.9	18	9.7
ANTELOPE	10	18.9	4	*
ARTHUR	2	*	1	*
BANNER	-	-	-	-
BLAINE	-	-	-	-
BOONE	13	28.0	2	*
BOX BUTTE	14	20.5	6	8.2
BOYD	3	*	1	*
BROWN	8	30.6	3	*
BUFFALO	32	17.6	22	12.0
BURT	13	22.0	8	12.0
BUTLER	9	16.2	8	13.7
CASS	31	25.5	12	10.1
CEDAR	7	11.0	2	*
CHASE	4	*	3	*
CHERRY	14	35.3	2	*
CHEYENNE	15	26.2	9	14.3
CLAY	8	17.5	3	*
COLFAX	13	15.5	3	*
CUMING	7	10.6	3	*
CUSTER	16	19.1	5	*
DAKOTA	14	16.6	4	*
DAWES	7	15.6	3	*
DAWSON	18	13.4	8	6.0
DEUEL	4	*	1	*
DIXON	14	35.1	8	17.9
DODGE	42	19.4	21	8.8
DOUGLAS	387	19.1	183	9.3
DUNDY	5	*	2	*
FILLMORE	8	17.8	4	*
FRANKLIN	6	22.9	1	*
FRONTIER	5	*	2	*
FURNAS	12	23.3	6	11.3
GAGE	29	19.1	16	9.5
GARDEN	1	*	-	-
GARFIELD	3	*	-	-
GOSPER	6	33.3	1	*
GRANT	-	-	-	-
GREELEY	5	*	2	*
HALL	52	19.3	20	7.3
HAMILTON	9	17.5	2	*
HARLAN	5	*	4	*
HAYES	-	-	1	*
HITCHCOCK	6	19.7	5	*
HOLT	13	15.4	3	*
HOOKER	2	*	-	-
HOWARD	12	29.1	4	*

TABLE 14: Non-Hodgkin Lymphoma Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	18	30.4	8	11.3
JOHNSON	10	31.5	4	*
KEARNEY	4	*	5	*
KEITH	9	15.9	5	*
KEYA PAHA	1	*	2	*
KIMBALL	4	*	3	*
KNOX	9	10.9	4	*
LANCASTER	227	21.8	100	9.7
LINCOLN	36	19.4	12	6.1
LOGAN	-	-	-	-
LOUP	2	*	1	*
McPHERSON	-	-	-	-
MADISON	32	17.6	21	10.8
MERRICK	13	26.3	6	10.5
MORRILL	8	25.1	2	*
NANCE	5	*	2	*
NEMAHA	8	16.1	2	*
NUCKOLLS	14	36.0	8	17.9
OTOE	20	21.3	13	11.6
PAWNEE	6	20.1	4	*
PERKINS	2	*	2	*
PHELPS	10	15.7	6	9.2
PIERCE	15	30.2	5	*
PLATTE	33	24.8	15	11.7
POLK	7	16.3	2	*
RED WILLOW	14	21.0	5	*
RICHARDSON	8	11.7	9	12.0
ROCK	2	*	1	*
SALINE	16	19.9	8	8.1
SARPY	78	16.7	24	6.6
SAUNDERS	31	28.6	13	10.8
SCOTTS BLUFF	32	14.9	19	8.2
SEWARD	29	32.5	10	10.6
SHERIDAN	4	*	5	*
SHERMAN	8	37.9	2	*
SIOUX	1	*	-	-
STANTON	3	*	2	*
THAYER	18	32.6	6	12.6
THOMAS	1	*	-	-
THURSTON	5	*	1	*
VALLEY	4	*	4	*
WASHINGTON	20	20.3	13	12.9
WAYNE	8	16.9	1	*
WEBSTER	2	*	2	*
WHEELER	-	-	1	*
YORK	13	16.4	3	*

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 15: Leukemia Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	11.9	NA	7.7
NEBRASKA	1,116	12.7	736	8.2
COUNTY				
ADAMS	13	8.1	6	3.2
ANTELOPE	6	9.8	3	*
ARTHUR	-	-	-	-
BANNER	1	*	-	-
BLAINE	1	*	1	*
BOONE	5	*	3	*
BOX BUTTE	5	*	6	8.0
BOYD	1	*	2	*
BROWN	1	*	-	-
BUFFALO	21	11.9	13	7.1
BURT	6	12.4	7	10.7
BUTLER	10	17.9	6	11.4
CASS	12	9.7	8	6.5
CEDAR	8	12.1	4	*
CHASE	3	*	3	*
CHERRY	8	19.6	6	16.4
CHEYENNE	12	21.0	6	9.7
CLAY	6	11.8	6	11.5
COLFAX	11	12.8	9	7.8
CUMING	8	11.9	6	8.7
CUSTER	7	8.0	6	5.1
DAKOTA	14	16.0	9	10.9
DAWES	3	*	1	*
DAWSON	20	16.4	6	4.8
DEUEL	-	-	-	-
DIXON	7	15.1	4	*
DODGE	30	14.1	16	6.7
DOUGLAS	259	12.8	185	9.3
DUNDY	4	*	2	*
FILLMORE	6	11.9	3	*
FRANKLIN	4	*	1	*
FRONTIER	2	*	-	-
FURNAS	3	*	2	*
GAGE	13	8.4	5	*
GARDEN	2	*	2	*
GARFIELD	4	*	3	*
GOSPER	-	-	-	-
GRANT	1	*	-	-
GREELEY	2	*	1	*
HALL	31	11.2	26	9.2
HAMILTON	11	19.0	6	9.2
HARLAN	2	*	2	*
HAYES	-	-	-	-
HITCHCOCK	3	*	3	*
HOLT	10	11.9	5	*
HOOKER	3	*	-	-
HOWARD	8	17.4	6	13.3

TABLE 15: Leukemia Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	9	14.2	3	*
JOHNSON	5	*	2	*
KEARNEY	1	*	3	*
KEITH	4	*	4	*
KEYA PAHA	-	-	-	-
KIMBALL	3	*	1	*
KNOX	7	9.4	8	9.0
LANCASTER	145	13.9	90	8.6
LINCOLN	27	14.2	12	6.6
LOGAN	-	-	-	-
LOUP	-	-	-	-
McPHERSON	2	*	-	-
MADISON	29	16.2	19	9.9
MERRICK	5	*	-	-
MORRILL	2	*	2	*
NANCE	7	24.5	5	*
NEMAHA	6	12.1	3	*
NUCKOLLS	11	23.3	8	15.5
OTOE	6	5.3	5	*
PAWNEE	2	*	2	*
PERKINS	4	*	4	*
PHELPS	7	10.6	5	*
PIERCE	8	16.3	7	12.7
PLATTE	24	18.7	19	14.8
POLK	7	20.2	2	*
RED WILLOW	16	21.2	9	10.6
RICHARDSON	9	9.8	3	*
ROCK	1	*	-	-
SALINE	13	15.2	8	8.7
SARPY	57	13.5	30	7.7
SAUNDERS	6	5.7	9	8.1
SCOTTS BLUFF	21	10.4	17	8.1
SEWARD	16	17.6	13	14.2
SHERIDAN	3	*	5	*
SHERMAN	4	*	3	*
SIOUX	-	-	2	*
STANTON	4	*	4	*
THAYER	12	21.7	5	*
THOMAS	-	-	-	-
THURSTON	5	*	3	*
VALLEY	4	*	5	*
WASHINGTON	13	12.5	13	12.5
WAYNE	10	20.7	7	11.6
WEBSTER	4	*	1	*
WHEELER	-	-	1	*
YORK	10	11.2	5	*

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 16: Pancreatic Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	10.9	NA	10.6
NEBRASKA	851	9.6	868	9.7
COUNTY				
ADAMS	21	11.8	18	9.3
ANTELOPE	4	*	3	*
ARTHUR	-	-	-	-
BANNER	-	-	-	-
BLAINE	1	*	1	*
BOONE	4	*	3	*
BOX BUTTE	7	11.1	10	15.3
BOYD	3	*	2	*
BROWN	4	*	5	*
BUFFALO	18	9.7	11	6.0
BURT	4	*	3	*
BUTLER	8	14.0	8	13.6
CASS	13	10.7	8	6.7
CEDAR	3	*	2	*
CHASE	3	*	2	*
CHERRY	3	*	2	*
CHEYENNE	7	11.4	7	11.2
CLAY	7	15.0	6	12.4
COLFAX	5	*	4	*
CUMING	8	10.1	10	13.2
CUSTER	8	7.7	8	8.0
DAKOTA	9	10.1	9	10.5
DAWES	-	-	-	-
DAWSON	13	9.7	15	10.8
DEUEL	-	-	1	*
DIXON	4	*	3	*
DODGE	21	9.2	24	10.4
DOUGLAS	231	11.7	232	11.7
DUNDY	1	*	1	*
FILLMORE	4	*	6	11.0
FRANKLIN	3	*	3	*
FRONTIER	1	*	1	*
FURNAS	8	15.3	7	11.8
GAGE	16	10.3	26	16.1
GARDEN	3	*	3	*
GARFIELD	1	*	-	-
GOSPER	-	-	1	*
GRANT	-	-	1	*
GREELEY	3	*	1	*
HALL	26	9.3	22	7.8
HAMILTON	4	*	7	12.6
HARLAN	2	*	-	-
HAYES	1	*	1	*
HITCHCOCK	1	*	1	*
HOLT	7	9.6	6	8.1
HOOKER	1	*	1	*
HOWARD	2	*	2	*

TABLE 16: Pancreatic Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	8	13.7	7	10.3
JOHNSON	2	*	3	*
KEARNEY	4	*	4	*
KEITH	2	*	7	11.6
KEYA PAHA	-	-	-	-
KIMBALL	1	*	-	-
KNOX	7	9.3	6	7.6
LANCASTER	97	9.5	89	8.6
LINCOLN	18	9.3	23	11.7
LOGAN	1	*	-	-
LOUP	-	-	-	-
McPHERSON	-	-	-	-
MADISON	18	9.4	20	10.6
MERRICK	3	*	4	*
MORRILL	2	*	2	*
NANCE	1	*	3	*
NEMAHA	7	15.4	8	17.9
NUCKOLLS	6	12.3	5	*
OTOE	15	14.3	15	13.8
PAWNEE	-	-	-	-
PERKINS	3	*	4	*
PHELPS	9	13.5	10	14.4
PIERCE	6	11.1	5	*
PLATTE	15	11.7	14	11.0
POLK	1	*	3	*
RED WILLOW	5	*	6	6.9
RICHARDSON	5	*	4	*
ROCK	-	-	-	-
SALINE	6	7.0	7	8.4
SARPY	43	10.5	42	10.3
SAUNDERS	9	8.0	11	10.0
SCOTTS BLUFF	21	9.7	19	8.5
SEWARD	7	7.6	11	11.4
SHERIDAN	2	*	2	*
SHERMAN	2	*	1	*
SIOUX	-	-	1	*
STANTON	2	*	5	*
THAYER	5	*	5	*
THOMAS	1	*	-	-
THURSTON	3	*	5	*
VALLEY	1	*	2	*
WASHINGTON	8	8.0	12	11.5
WAYNE	2	*	3	*
WEBSTER	3	*	5	*
WHEELER	-	-	-	-
YORK	7	7.9	8	8.2

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 17: Melanoma of the Skin Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	17.7	NA	2.7
NEBRASKA	1,245	14.9	236	2.7
COUNTY				
ADAMS	16	10.2	7	3.9
ANTELOPE	8	16.6	-	-
ARTHUR	-	-	-	-
BANNER	-	-	-	-
BLAINE	-	-	-	-
BOONE	2	*	2	*
BOX BUTTE	9	13.4	3	*
BOYD	2	*	1	*
BROWN	6	23.7	1	*
BUFFALO	24	13.4	6	3.6
BURT	4	*	-	-
BUTLER	4	*	-	-
CASS	20	16.1	4	*
CEDAR	8	13.9	-	-
CHASE	8	33.2	1	*
CHERRY	7	19.6	2	*
CHEYENNE	6	12.8	-	-
CLAY	-	-	-	-
COLFAX	11	14.6	4	*
CUMING	9	13.9	2	*
CUSTER	18	26.3	1	*
DAKOTA	12	13.2	3	*
DAWES	3	*	1	*
DAWSON	8	▼6.1	2	*
DEUEL	2	*	-	-
DIXON	4	*	5	*
DODGE	26	14.5	6	2.6
DOUGLAS	301	14.2	47	2.3
DUNDY	1	*	1	*
FILLMORE	5	*	3	*
FRANKLIN	2	*	-	-
FRONTIER	2	*	-	-
FURNAS	6	17.4	1	*
GAGE	19	14.1	6	4.5
GARDEN	-	-	-	-
GARFIELD	2	*	-	-
GOSPER	-	-	-	-
GRANT	2	*	1	*
GREELEY	1	*	-	-
HALL	39	15.0	8	2.8
HAMILTON	11	20.6	2	*
HARLAN	3	*	2	*
HAYES	-	-	1	*
HITCHCOCK	8	43.1	2	*
HOLT	11	13.8	2	*
HOOKER	1	*	-	-
HOWARD	4	*	-	-

TABLE 17: Melanoma of the Skin Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1997-2001) and US (1996-2000)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	11	20.2	3	*
JOHNSON	2	*	-	-
KEARNEY	3	*	-	-
KEITH	12	25.8	5	*
KEYA PAHA	-	-	-	-
KIMBALL	2	*	2	*
KNOX	7	11.1	-	-
LANCASTER	189	17.4	25	2.4
LINCOLN	32	18.4	3	*
LOGAN	-	-	-	-
LOUP	-	-	-	-
McPHERSON	1	*	-	-
MADISON	24	14.1	5	*
MERRICK	6	14.4	1	*
MORRILL	3	*	4	*
NANCE	4	*	2	*
NEMAHA	9	20.8	-	-
NUCKOLLS	5	*	1	*
OTOE	13	16.3	4	*
PAWNEE	2	*	-	-
PERKINS	3	*	1	*
PHELPS	7	11.6	4	*
PIERCE	1	*	2	*
PLATTE	17	12.5	3	*
POLK	4	*	1	*
RED WILLOW	13	18.8	2	*
RICHARDSON	15	28.1	2	*
ROCK	1	*	-	-
SALINE	12	16.7	3	*
SARPY	93	18.4	15	3.6
SAUNDERS	13	13.1	-	-
SCOTTS BLUFF	43	20.2	7	3.3
SEWARD	13	16.5	3	*
SHERIDAN	4	*	-	-
SHERMAN	1	*	1	*
SIOUX	-	-	-	-
STANTON	2	*	1	*
THAYER	3	*	-	-
THOMAS	-	-	-	-
THURSTON	3	*	1	*
VALLEY	2	*	-	-
WASHINGTON	17	17.5	3	*
WAYNE	3	*	1	*
WEBSTER	3	*	-	-
WHEELER	-	-	-	-
YORK	12	17.3	4	*

NA – not available
*Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

REFERENCES

American Cancer Society. Cancer Facts and Figures – 2002. Atlanta: American Cancer Society, 2002.

American Cancer Society: Cancer Prevention and Early Detection, Facts and Figures – 2002. Atlanta: American Cancer Society, 2002.

American Cancer Society: Cancer Reference Information. Available from: URL: http://www.cancer.org/docroot/CRI/

Brownson RC, Reif JS, Alavanja MCR, Bal DG: Cancer. *In* Chronic Disease Epidemiology and Control (Brownson RC, Remington PL, Davis JR, eds.). Washington: American Public Health Association, 1993.

Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin DM, Whelan S. International Classification of Diseases for Oncology, 3rd edition (US interim version 2000). Geneva, Switzerland: World Health Organization, 2000.

Godfrey K: Comparing the means of several groups. New England Journal of Medicine 313 (23):1450-6, 1985.

Harras A (ed.): Cancer Rates and Risks, 4th edition. Bethesda, MD: National Cancer Institute, 1996; NIH Publication #96-691.

Nebraska Health and Human Services System: Nebraska Vital Statistics Report(s), 1959-2002. Lincoln, NE: Nebraska Department of Health/Nebraska Health and Human Services System, 1960-2003.

Percy C, Van Holten V, Muir C: International Classification of Diseases for Oncology, 2nd edition. Geneva, Switzerland: World Health Organization, 1990.

Smith RA, Saslow D, Sawyer KA, Burke W, Costanza ME, Evans WP, et. al.: American Cancer Society guidelines for breast cancer screening: update 2003. CA Cancer J Clin 53:141-169, 2003.

Surveillance, Epidemiology, and End Results (SEER) Program: SEER*Stat Databases: Incidence (9 registries, 1973-2000) and Mortality (total U.S., 1990-2000). Bethesda, MD: National Cancer Institute, April 2003. Available from: URL: http://seer.cancer.gov/canques/

Weir HK, Thun MJ, Hankey BF, Ries LAG, Howe HL, Wingo PA, et. al.: Annual report to the nation on the status of cancer, 1975-2000, featuring uses of surveillance data for cancer prevention and control. JNCI 95 (17): 1276-1299, 2003.

World Health Organization: Manual of the International Statistical Classification of Diseases and Related Health Problems, 10th revision. Geneva, Switzerland: World Health Organization, 1992.

World Health Organization: Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 9th revision. Geneva, Switzerland: World Health Organization, 1977.

Participants in the Nebraska Cancer Registry
(City--Facility)

Ainsworth--Brown County Hospital
Albion--Boone County Health Center
Alliance--Box Butte General Hospital
Alma--Harlan County Health System
Atkinson--West Holt Memorial Hospital, Inc.
Auburn--Nemaha County Hospital
Aurora--Memorial Hospital
Bassett--Rock County Hospital
Beatrice--Beatrice Community Hosp. & Hlth. Ctr., Inc.
Benkelman--Dundy County Hospital
Blair--Memorial Community Hospital
Bridgeport--Morrill County Community Hospital
Broken Bow--Jennie M. Melham Memorial Med. Ctr.
Callaway--Callaway District Hospital
Cambridge--Tri Valley Health System
Central City--Litzenberg Memorial County Hospital
Chadron--Chadron Community Hosp. & Hlth. Svcs.
Columbus--Columbus Community Hospital, Inc.
Cozad--Cozad Community Hospital
Creighton--Creighton Area Health Services
Crete--Crete Area Medical Center
David City--Butler County Health Care Center
Fairbury--Jefferson Community Health Center, Inc.
Falls City--Community Medical Center, Inc.
Franklin--Franklin County Memorial Hospital
Fremont--Fremont Area Medical Center
Friend--Warren Memorial Hospital
Geneva--Fillmore County Hospital
Genoa--Genoa Community Hospital/LTC
Gordon--Gordon Memorial Hospital District
Gothenburg--Gothenburg Memorial Hospital
Grand Island--St. Francis Medical Center
Grant--Perkins County Health Services
Hastings--Mary Lanning Memorial Hospital
Hebron--Thayer County Health Services
Henderson--Henderson Health Care Services
Holdrege--Phelps Memorial Health Center
Imperial--Chase County Community Hospital
Kearney--Good Samaritan Hospital
Kearney--Good Samaritan Hospital Pathology
Kimball--Kimball County Hospital
Lexington--Tri-County Area Hospital District
Lincoln—Bryan-LGH Medical Center East & West
Lincoln--Saint Elizabeth Regional Medical Center
Lincoln--Pathology Medical Services
Lincoln--Williamsburg Radiation Center
Lynch--Niobrara Valley Hospital Corp.
McCook--Community Hospital
Minden--Kearney County Health Services
Nebraska City--St. Mary's Hospital
Neligh--Antelope Memorial Hospital
Norfolk--Faith Regional Health Services East & West
North Platte--Great Plains Regional Medical Center
North Platte--Pathology Services, P.C.
Oakland--Oakland Memorial Hospital
Offutt AFB--Ehrling Berquist Hospital
Ogallala--Ogallala Community Hospital
Omaha--Alegent Health - Bergan Mercy Medical Ctr.
Omaha--Alegent Health - Immanuel Medical Center
Omaha--Children's Hospital
Omaha--Methodist Hospital Pathology Center
Omaha--Nebraska Health System
Omaha—The Nebraska Methodist Hospital
Omaha--St. Joseph Hospital
Omaha—Dept. of Veteran's Affairs Medical Center
Omaha--Bergan Mercy Medical Ctr. Pathology
Omaha--Bishop Clarkson Hospital Pathology
Omaha--Creighton Pathology Associates
Omaha--Nichols Institute
Omaha--Physicians Lab
O'Neill--Avera St. Anthony's Hospital
Ord--Valley County Hospital
Osceola--Annie Jeffrey Memorial County Hlth. Ctr.
Oshkosh--Garden County Health Services
Osmond--Osmond General Hospital
Papillion--Alegent Health Midlands Community Hosp.
Pawnee City--Pawnee County Memorial Hospital
Pender--Pender Community Hospital
Plainview--Plainview Area Health System
Red Cloud--Webster County Community Hospital
Schuyler--Alegent Health Memorial Hospital
Scottsbluff--Regional West Medical Center
Scottsbluff--Western Pathology Consultants
Seward--Memorial Hospital
Sidney--Memorial Health Center
St. Paul--Howard County Community Hospital
Superior--Brodstone Memorial Hospital
Syracuse--Community Memorial Hospital
Tecumseh--Johnson County Hospital
Tilden--Tilden Community Hospital
Valentine--Cherry County Hospital
Wahoo--Saunders County Health Services
Wayne--Providence Medical Center
West Point--St. Francis Memorial Hospital
Winnebago--U.S. Public Hlth. Service Indian Hospital
York--York General Hospital

Other States:
Rapid City, SD--Rapid City Regional Hospital
Sioux Falls, SD--Sioux Valley Hospital
Yankton, SD--Sacred Heart Hospital
Sioux City, IA--Mercy Medical Center

State cancer registries of Colorado, Iowa, Kansas, Missouri, South Dakota, and Wyoming